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Finding solutions : teaching the problem-solving process

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FINDING SOLUTIONS:
TEACHING THE PROBLEM-SOLVING PROCESS

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Abstract

The project: *Finding Solutions: Teaching the Problem-Solving Process* explains an integrated approach to teaching personal problem-solving through social skill lessons, language arts activities and classroom management strategies. The researcher developed a rationale, lesson plans, and methodology based on an in-depth review of the literature. The researcher drew on her experience as a classroom teacher to develop an approach that attempts to meet the needs of all learners and to suit her teaching style. She used the problem-solving steps from the *Second Step* violence prevention program (Committee for Children, 1992) as a framework to build the unit that she implemented in her Grade 3 classroom. The lessons were also linked to the learning outcomes found in British Columbia’s *Integrated Resource Package for Personal Planning* (1995). The rating scale for Grades K to 3: *Solving Problems in Peaceful Ways* from the *B. C. Performance Standards: Social Responsibility* draft document was used (Ministry of Education, 2000). The study concluded that the blend of interactive and independent activities was effective in strengthening the students’ personal problem-solving abilities. The students also demonstrated an increased willingness to solve their own problems. Appendices include the bibliography of children’s literature, the student self-evaluation questionnaire, and lesson worksheets that were used in implementing and assessing the unit.
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Background

This project first started with my research on self-esteem. My quest to understand self-esteem more fully and how to develop it in myself soon led me to think about how to apply my findings to my teaching. I looked for a way to help my students strengthen their self-esteem. Both my reading and experience reinforced the idea of the importance of the problem-solving process. I realized that problem-solving was a skill that everyone could use at whatever stage they are in life, adult or child. Once the steps are learned, they can be applied and adapted to various situations. I thought about times when I used a problem-solving process to help me resolve problems as an adult. I would have welcomed the opportunity to learn and practise it as a child.

I also looked at how problem-solving fit into the curriculum. It has many applications as a critical thinking skill in many subject areas, but I was most interested in how problem-solving fit into British Columbia’s Personal Planning curriculum (Ministry of Education, 1995).

As I began developing ideas for the teaching the problem-solving process, I saw that there could be benefits for the teacher as well as the student. Over the last several years, I realized that I was spending an increasing amount of energy dealing with the needs of individual students with behavioral difficulties. More and more students were presenting challenging behaviors and this became a source of stress in my life as a teacher.

Through personal reflection I began to understand that I needed to take a more proactive approach to student behavioral concerns. I realized that being better organized and preparing more interesting lessons did not have the effect on student behavior that I was looking for. These solutions were not addressing the core of the problem. I observed
that many students did not have effective strategies to deal with their own problems. When they made a poor behavioral choice, it made it difficult for me to teach effectively. Their problems affected me and became my problem. I needed to develop a solution; neither my needs nor those of the students were being met.

I wondered if could I teach the students to become better problem-solvers. If the students were better at solving their own problems, would this alleviate some of my stress? Could teaching problem-solving address my needs as well as the students?

It is my hope that by teaching the problem-solving process to my students they will learn to deal with their own problems. I hope this will mean that the students’ problems will not become my problems and that both the students’ and my life will be improved.

This project is an analysis of how I developed my approach to teaching problem-solving skills, including my rationale as well as a detailed look at my observations and reflections of the actual lessons. I also examined student performance and tried to find evidence that teaching the problem-solving process helped students improve in their ability to solve problems on their own.
Rationale

Teaching problem-solving can benefit both the student and the teacher and is integral with the curriculum. The needs and goals of the teacher and the student and the requirements of the curriculum are all interwoven in a strong interrelationship. I see many ways to examine the relationship. For example, if the student’s needs are being met, the teacher’s goal of trying to fulfill the student’s needs is reached. When the curriculum is delivered in a way that suits both the learning style of the student and the teaching style of the teacher, everyone benefits. The interconnectedness of the student, teacher and the curriculum is complex. When I was developing these lessons and activities I sought to center them in a way that the needs or goals of the student, the teacher and the curriculum were fulfilled.

Aoki’s (1991) article, “Teaching as In-dwelling Between Two Curriculum Worlds,” can be useful to help explain the relationship between curriculum, the teacher, and the student. He writes of teaching as “in-dwelling” between two curricular worlds, the worlds of curriculum-as-plan and the curriculum-as-lived-experiences. He describes the tensionality that exists as a teacher works to integrate the curriculum-as-plan with the lived situation of her classroom.

By teaching problem-solving to my students and helping my students make connections between the skills they are learning and real-life situations, I feel that I am in the “zone of between” (Aoki, 1991) between the “planned” and the “lived” curriculums. Although I planned lessons with specific objectives, my lessons remained flexible and fluid in order to adapt to the changing needs of my students. I strived to provide opportunities that allowed the students to make connections between the curriculum and
their real-life experiences. Not only did the students learn problem-solving techniques, but they were also given opportunities to practise these techniques.

The next section will explain why problem-solving is important to teach in relationship to the student, the teacher and the curriculum.

Benefits to students

Problem-solving is a skill that each student can use in his or her daily life. Students with good problem-solving abilities can gain independence by not relying on an adult to help them with every problem or decision that arises. They can become truly responsible for their own behavior.

Teaching problem-solving skills helps the student develop a sense of power and competence. Children who have a sense of power can influence what happens in their life. Adults can help children build this sense of power by teaching and allowing them to solve problems (Clemes & Bean, 1981). As a child’s sense of power and competence develops, so does his/her self-esteem.

The kind of self-esteem that develops as a child sees himself/herself becoming competent is authentic and based on truth, and inner feelings, not through someone else promoting them. Shapiro (1997) cautions that helping children feel good about themselves only has meaning if those feelings are attached to specific achievements and the mastering of new skills. “Self-esteem is promoted by positive self-experiences” (Curry & Johnson, 1990, p. 3).

Research suggests that learning to problem-solve can help students strengthen their self-esteem (Adams, 1994; Borba, 1989; Branden, 1994; Curry & Johnson, 1990; Seligman, 1995). This is based on the premise that as students learn to solve problems
and think for themselves they will develop confidence in their own abilities as problem solvers. This increased problem solving ability can lead to increased self-esteem.

The definition of self-esteem that is most useful to me is that of Branden (1994). He divides self-esteem into two components: that of self-efficacy, which is the disposition to experience oneself as competent to cope with the basic challenges of life and self-worth, which is the disposition to experience oneself as worthy of happiness. Seligman (1995) adapted this definition and refers to self-efficacy as “doing well” and self-worth as “feeling good.” By teaching the problem-solving process to students, I seek to strengthen the self-efficacy or “doing well” component of self-esteem. This in turn, I believe, will lead the students to develop an authentic reason to “feel good” about themselves.

Branden believes that “what determines the level of self-esteem is what the individual does” (1994, p. 60). He advocates six internal sources or practices of self-esteem. Self-responsibility is one such practice that has a link to problem-solving. Branden states, “To practise self-responsibility is to think for oneself” (p. 112).

Seligman (1995) thinks that learning good social and problem-solving skills has a role in preventing depression and promoting optimism in children. He believes that learning problem-solving strategies helps a child change feelings of helplessness into mastery, and this in turn enhances the “doing well” component of self-esteem.

Curry and Johnson (1990) advocate that it is important to go beyond trying to get children to “feel good” about themselves and that it is important to consider how children develop a genuine sense of human value. They conclude, “Self-esteem is supported by teaching children in skills and problem-solving techniques needed to achieve personally
desired goals. Techniques that enable children to become strategic thinkers and social problem-solvers need to be more widely understood and implemented” (p. 156).

Borba (1989) believes that teaching problem-solving skills will enhance a student’s sense of self-esteem by improving a component of self-esteem that she refers to as “mission.” A student with a strong sense of “mission” may be recognized as taking responsibility for his/her own actions as well as recognizing consequences and seeking alternative solutions to problems, among other characteristics. Adams (1994) states “Children who have the ability to resolve their own conflicts are rewarded by enhanced self-esteem” (p. 83).

Learning problem-solving skills help a student to develop their interpersonal and intrapersonal intelligences, two of the multiple intelligences described by Gardner (1983). Interpersonal intelligence refers to the ability to work effectively with other people. People with high levels of interpersonal intelligence are able to distinguish the moods, temperaments, motivations, and intentions of other people and act on this knowledge to be able to respond in an appropriate manner. Intrapersonal intelligence relates to the ability to be aware of and understand one’s own emotions, goals and intentions. The problem-solving lessons and activities that I developed can enhance both the student’s interpersonal and intrapersonal intelligences.

Problem solving is also important in developing emotional intelligence (Goleman, 1995; Shapiro, 1997). The term “emotional intelligence” is defined as “a subset of social intelligence involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and
actions.” (Shapiro, 1997, p. 8) It is used to describe qualities that appear to be important to success, including interpersonal problem-solving.

Goleman (1995) explores the concept of emotional intelligence and advocates the need for emotional literacy and competence. He believes that emotional intelligence is more closely linked to lifelong success than is IQ. He sees an expanded mission for schools, and a return to a classic role for education. He thinks that schools should be society’s agent for seeing that children learn emotional literacy, what he considers essential lessons for life. He believes that, apart from specifics of curriculum, opportunities should found to help students turn moments of personal crisis into lessons in emotional competence. He believes that the optimal design of emotional literacy programs includes an early beginning, is age-appropriate, runs throughout the school years, and intertwines efforts at school, at home, and in the community.

Goleman (1995) states that in order for prevention programs, be they aimed at preventing violence, drug abuse, teen pregnancy or child abuse, to be effective, they should include emotional skills that are also the ingredients of emotional intelligence. He believes that optimal prevention programs should include self-awareness; identifying, expressing, and managing feelings; impulse control and delaying gratification; and handling stress and anxiety.

Research has also shown that when children learn problem-solving thinking, their social adjustment improves. Spivack and Shure (1974) designed a training program to teach personal and interpersonal skills to children. They found that controlled change in the thinking processes involved in cognitive interpersonal problem-solving led to enhanced social adjustment. They attributed this enhanced social adjustment to the change
in ability to solve problems. They found that there was a direct link between behavioral change and cognitive change. Those trained youngsters that improved most in cognitive skills also improved most in behavioral adjustment. They also found that the changes in thinking and behavior persisted over a period of months although training had ceased. The program was successful for well-adjusted children too. These children were found to maintain their adjustment with significantly greater likelihood than other well-adjusted but non-trained children.

Learning problem-solving skills also improves students’ acceptance by peers and reduces their isolation (Elias & Clabby, 1992). Students with problem-solving skills adapt better in the classroom. Spivack and Shure (1974) reported that there was a positive relationship between fifth grade youngsters’ ability to imagine a variety of interpersonal problem solutions and the ability to adapt in the classroom.

The learner is valued when problem-solving strategies are taught. The problem-solving process provides a framework that a student can use to approach problems and that can be used at differing skill levels. Although a problem may be new or different, it can be approached in a similar way and students can build on their experience.

Benefits to the teacher

Teaching problem-solving is a proactive solution to classroom conflicts and as such can lessen disruptions that get in the way of teaching and learning thus allowing instructional time that might be lost to behavioral disruptions to be retained. By teaching students problem-solving skills, a solution can be put in place before a problem exists.

By teaching problem-solving, it is likely that there will be fewer conflicts and the classroom climate will improve. As the students become more self-sufficient, it frees the
teacher to work with children in an atmosphere designed for learning (Begun, 1995). Elias and Clabby (1992) found that there were significant reductions in amount of teacher time that was needed to help students solve problems after the students had been involved in a program that taught social problem-solving. Teaching problem-solving can make classroom management easier, since everyone shares a common language and process for dealing with conflicts.

Teaching problem-solving skills also fits into my philosophy of teaching and learning and allows me to teach students a life-long skill and also to spend more time in the role of facilitator. I believe it is my responsibility as a teacher to provide opportunities for my students to grow and become better able to do things on their own. I want to teach students to help themselves and become better thinkers, problem-solvers and decision-makers so they are able to manage without me. The less my students need me, the more success I feel I have achieved. Teaching problem-solving skills helps me achieve these goals.

I believe that problem-solving skills are important and can be learned, and should therefore be taught. Problem-solving skills are life-long skills. The problem-solving skills learned in a Grade 3 classroom can be built on and used throughout a student’s life. Students who develop problem-solving skills will be better able to handle conflict situations as they arise and be better able to focus on learning as they progress through school.

It is important for a teacher to directly teach all skills, both academic and social skills, and to allow opportunities for reinforcement and practise. Social skills need to be taught; it is of little use to fall into the trap of thinking, "They should know better."
There are some who argue that the school is getting too involved with the lives of our students and that we should leave the teaching of social skills to the parents. I believe if a skill is important for life, it is important to teach; and it should not be left to chance. In my experience, most of the kids come to school knowing most of the social skills; the lessons at school reinforce what they have been taught at home. These students can then model the behavior at school.

A child can learn as much or more from his or her peers as from an adult. Student interaction can be very powerful, both negative and positive. By teaching problem solving, it is possible to keep the focus on the positive rather than allowing negative behavior to take hold. In every class, it is important to support the positive members and allow their voice to be heard.

Integration with the curriculum

Problem-solving is an integral part of the curriculum. Solving problems is included as one of the core learnings in British Columbia’s Kindergarten to Grade 12 Education Plan (1994). It states, “All levels of the program are developed around a common core of learning to ensure that students learn to read, write, and do mathematics, solve problems, and use computer-based technology” (p. 3). The plan also places importance on problem-solving because of its value to employers. “Employers expect graduates to be good learners, to think critically and solve problems, to communicate clearly, to be self-directed, and to work well with others” (p. 4).

Problem-solving is mentioned in various Integrated Resource Packages (I.R.P.s) in British Columbia, but the goals and learning outcomes found in the Personal Planning K to 7 I.R.P. (Ministry of Education, 1995) are especially applicable to this unit. One of the
goals of the personal planning curriculum is, “Making plans and decisions: to develop
students’ abilities to plan and make decisions systematically” (p. 3).

The learning outcomes from “Making plans and decisions” for Grades 2-3 that are
applicable to teaching problem-solving skills include:

• identify various ways to respond to and solve problems

• distinguish between decisions that they can make and decisions that are the
  responsibility of others

• identify the steps in a decision-making process (p. 38).

Although I planned the problem-solving unit for Grade 3, I looked to the Grade 4 learning
outcomes as well. In Grade 4, the learning outcomes include:

• select and use effective problem-solving strategies

• point out the possible impact of their decisions on themselves, on others, and
  on the environment

• apply a systematic decision-making process (p. 62).
Methodology

Design and Purpose of the Study

This project became more complex as it developed. It started out with an idea to teach my students to become better problem solvers. I thought it would be simple and straightforward. That has not been the case, but it has been a rewarding process nonetheless. At first I considered I would teach a “problem-solving program” to the students. I would test the students before the program, teach the program, test them again and report on the results.

I examined design strategy choices, specifically a case study design (Borg & Gall, 1985; Fink & Kosecoff, 1978). Because of its practical orientation and its use of field research, I realized that my planned project could follow the Interpretive Social Science approach (Neuman, 1997). I thought that the categories proposed by Fink and Kosecoff would be helpful to organize the evaluation plan of the program as an effectiveness evaluation. I considered that the key question could be: “Is the problem-solving program effective in increasing the students’ problem solving skills so that they are better able to handle their own problems independently?”

Next I looked at developing the “problem-solving program.” I thought I might piece together lessons and activities that others had developed, but I soon understood that it wasn’t that simple. When I attempted to find lessons or activities that would suit my teaching style and the needs of my students, I realized that I wanted to develop the program myself.
I struggled to find a word that would describe “the whole thing” that I was planning. I wasn’t happy about using the word “program” because it had connotations to me of a rigid “step-by-step” approach. I considered “theme,” but it seemed to suggest less connection than I preferred. I liked the idea of “approach” or “process” but these words explain a method better than a thing. I settled on “unit” because it seems to me that it could include the lessons, activities, processes, approaches and methods that are all vital parts of it. When I looked to the dictionary, I was convinced that unit explained it best. One of the definitions of a unit in the *Webster’s New Collegiate Dictionary* (Merriam, 1975) is, “a part of a school course focusing on a central theme and making uses of resources from numerous subject areas and the pupils’ own experiences” (p. 1279).

As I started to develop the unit I thought about why I teach what I teach and why I teach the way I do. It was helpful for me to examine and reflect on my teaching style and philosophy. The project evolved from this, and I began to see the importance of clearly explaining what it is I do as a teacher. I wanted to explain my thinking and reasons for teaching the way I do.

I realized that an action research approach was appropriate for this study since I agreed with the idea that knowledge develops from experience, a tenant of the action researcher (Neuman, 1997). I wanted to gain as much from the experience of the whole process as possible. I found the guide to field-based research developed by Jeroski (1992) was helpful as a general overview as well as for data collection ideas. Her comments about the importance of reflection as a part of fieldwork were especially relevant to me.
So I came up with a combination of approaches. I refer to it as action research with an effectiveness evaluation bent. I was still interested to see if the unit I developed and taught would help my students be better able to solve problems on their own. I also wanted to document how I taught the lessons and what I learned from the experience.

I assessed student problem-solving growth in a number of ways. I administered a student self-evaluation questionnaire before and at the end of the unit. I gathered and analyzed authentic data, such as writing samples and other written responses. I also observed student problem-solving behavior and rated the students using the scale for Grades K to 3: *Solving Problems in Peaceful Ways* from the *B. C. Performance Standards: Social Responsibility* draft document (Ministry of Education, 2000).

I decided to write about the process of developing and teaching the lessons and my feelings and reflections about them. I also wanted to explain how I used the problem-solving approach in conjunction with a behavioral management worksheet to promote effective classroom management.

**Subjects**

I taught the unit to my Grade 3 class which consisted of 23 students, 11 boys and 12 girls. The school is a medium-sized elementary school located in a residential neighbourhood of an East Kootenay, B. C. community with a population of approximately 25,000 people.

**Timing**

I looked to the research when I was planning the frequency and duration of instruction. The research suggests that social skill instruction is most effective if it occurs
regularly and continuously (Cartledge & Milburn, 1986). These authors also recommend that primary students would benefit from two sessions a week of 15 to 25 minutes each. They state that a period of time from several months to several years might be needed for the desired results.

I was left with somewhat of a dilemma; I knew from my experience that five or six weeks was a good length of time for an intensive unit; long enough to cover the material but short enough to ensure that student interest remained high. I also realized that to learn and be able to practise the problem-solving process would be difficult to accomplish in a shorter time. I knew that I wanted to make the unit as long as feasible without losing student interest, so I chose to implement an intensive six week unit and follow it up with a weekly activities over the next month. I planned to continue with practise and reinforcement activities as the need arose throughout the rest of the year. I planned one to two sessions per week of 30 minutes to one hour that were devoted to the “problem-solving” lessons. In addition to these lessons, I incorporated “problem-solving” children’s literature into my Language Arts lessons, which were scheduled for three to five sessions of 30 to 45 minutes per week.

I planned to implement the unit at the end of October so that I had time to establish a classroom climate of trust and cooperation. I planned for the bulk of the lessons to be taught in November, so that I could discuss any individual student’s progress with his or her parents during the parent/teacher conferences scheduled for early December.
Development of the Unit

When I decided to develop a unit to teach the problem-solving process I had a number of questions. I wondered if there was one version of problem-solving steps that would be better than the others and which teaching methods and activities would be most appropriate. I also thought about other considerations: teacher qualities and classroom climate, the appropriateness of teaching problem-solving to Grade 3 students, and how to assess individual student growth. I looked to the research literature to give me background in all these areas. I also explored how I could use the problem-solving process as a behavior management tool.

Selecting the Problem-solving Steps

I looked to the research literature for examples of problem-solving steps and found that there were numerous variations but most seemed to be based on a widely used definition of the problem-solving process developed by D'Zurilla and Goldfried (1971) and outlined by Cartledge and Milburn (1986). These problem-solving steps are:

1. General orientation
2. Problem definition and formulation
3. Generation of alternatives
4. Decision-making
5. Verification (p. 22).

I examined many versions of the problem-solving steps in order to select the one I felt was most appropriate for my unit. I found that some were too complex while other
versions were too simple. I believe that so many references to problem-solving steps in the research, indicates the importance of the problem-solving process.

Seligman (1995) describes the following problem-solving steps that he feels are important to promote optimism in children. Step 1 involves slowing down so that emotions can be under control. He refers to Step 2 as “perspective taking” where the problem is explored from different angles. He sees the third step as goal setting which is involves thinking about what the child would like to see happen and solutions that could help him or her reach the goal. The fourth step involves choosing a path or deciding what to do after considering the pluses and minuses. Evaluating how it went is Seligman’s fifth step.

Clemes and Bean (1981) explain the four steps that they believe help children build a sense of power by making decisions as: clarify the problem, search for alternative solutions, select an alternative by evaluating the consequences and evaluate the outcomes of the decision. Kreidler (1994b) also explained four steps that use the alphabet to help as a reminder to the child. They are:

A: Ask yourselves, “What is the problem?”

B: Brainstorm solutions.

C: Choose a good solution.

D: Do it (p. 21).

Another simple version of the problem-solving steps can be found in The Primary Substance Abuse Prevention Teacher Resource Book (Siska, 1991). The steps are based on a decision-making model developed by the Alcohol-Drug Education Service. The basic steps are look, think, and decide and the expanded version is as follows:
Look carefully at the problem
Think about the problem and the possible solutions
Decide which solution to choose and see if it works (p. 30).

Borba (1989) explains a seven step version of the problem-solving steps that involves defining the problem, thinking of solutions, selecting two or three preferred solutions, deciding what might happen if they were chosen, choosing the best solution after reviewing the consequences, making a plan and then doing it. Elias and Clabby’s (1989) version of the problem-solving process in their social decision-making skills curriculum is very similar to Borba’s, but it includes looking for signs of different feelings as the first step and adds rethinking to the last step. Gibbs (1995) six step strategy for decision making that she refers to as, “Let’s talk” is also similar and includes defining the problem, repeating the problem back, thinking it through, looking at both sides, deciding and acting, and evaluating the outcome.

Shure (1985) in her Interpersonal Cognitive Problem-Solving Program promotes the use of problem-solving steps for the teacher to use in the dialogue with a child who is experiencing a problem. She proposed seven steps that will help the child define the problem, explain their feelings about the problem as well as the possible consequences, and encourage thinking of and evaluating solutions. The final guideline for the teacher is to praise the child’s act of thinking.

A useful model of the problem-solving process is included in the B.C. Life Skill Program (Ministry of Education & Rick Hansen Enterprises, 1995). The process is explained in a graphic with the steps organized around the outside of a circle. The steps are:
Part 1: Identify the problem and causes of the problem

Part 2: Brainstorm possible solutions

Part 3: Choose the best solution

Part 4: Decide how to use the solution

Part 5: Ask: Does the solution work? (p. 8).

The Second Step violence prevention program (Committee for Children, 1992) includes problem-solving as a component of the program. I chose to use these steps in my unit because they contain all the attributes of D’Zurilla and Goldfried’s (1971) process in a simple format that the students can understand. Also, the program has been mandated by my school district and so the students are familiar with the content and format. The program uses “thinking out loud” questions to guide a child through each step. The questions are:

1. What is the problem?

2. What are some solutions?

3. For each solution ask:
   
   Is it safe?

   How might people feel?

   Is it fair?

   Will it work?

4. Choose a solution

5. Is it working?
Teaching Strategies

When I considered how I would teach the problem-solving process I studied social skills research as well as lessons and activities prepared by others. I looked for teaching and learning strategies that would be applicable to the unit. I also thought about how I would integrate the problem-solving process with language arts activities.

Social skills research.

I thought about how teaching a problem-solving unit would involve teaching social skills. In the research literature, social skills are often defined similarly to "...those behaviors that involve interaction between the child and his peers or adults, where the primary intent is the achievement of the child’s or adult’s goals through positive interactions" (Cartledge & Milburn, 1986, p. 8). I considered the problem-solving process to include many social skills, so I looked to social skills research for insight and information that I could apply to the unit.

When choosing which social skills to teach to children, it is important to select those behaviors that will have value to them and will continue to be reinforced after training (Cartledge & Milburn, 1986). I believe that problem-solving skills fit into this category because the students can use the strategies in their everyday interactions with each other, either in the classroom or on the playground.

As I developed the problem-solving lessons and activities, I kept in mind that social skills can be taught similarly to academic skills. I looked to the research literature to confirm the intuitions that I had developed through my experience. Cartledge and Milburn (1986) explain that many procedures for teaching social skills are the same as for teaching academic concepts. The procedures are exposing the child to a model, eliciting an imitative
response, and providing feedback and opportunities for practice. Similarly, Sugai and Pruitt (1993) propose that in order to teach social behavior like academic skills, first the general case should be taught and then there should be multiple examples and many practise opportunities that include the context setting. Useful corrections and positive feedback should be provided, and the students should finally be tested with new examples without assistance.

Although teaching problem-solving involves teaching social skills, there are differences, mainly because problem-solving skills are more complex. Teaching problem-solving is different from teaching a specific social skill because problem-solving is a process for finding answers rather than a specific set of behaviors (Cartledge & Milburn, 1986). When I developed the lessons and activities, I put emphasis on a certain part of the problem-solving process, but the skills were not taught in isolation. I tried to show the students where the lesson or activity fit into the whole problem-solving process.

When I planned the lessons and activities, I realized that there were varying degrees of competence in the class. From my teaching experience, I saw this as an advantage. The research literature also supports my view. Cartledge and Milburn (1986) state that having competent children along with skill deficient subjects in the instructional grouping enhances social skill instruction. I counted on being able to have some students share their ideas of strategies and model appropriate behavior.

My experience has shown me that student influence and modeling is powerful, especially when it comes to social skills and behavior. Cartledge and Milburn (1986) also agree that peer modeling facilitates social skill development. I believe that a child can learn as much or more from his or her peers as from an adult. Student interaction can be very
powerful, both negative and positive. By teaching problem solving, it is possible to keep the focus on the positive rather than allowing negative behavior to take hold. Throughout the unit, I planned opportunities for students to share positive examples with others through whole class discussions as well as small group activities. In every class, I tried hard to support the positive members and allow their voice to be heard.

Student interaction and peer modeling can be enhanced by the use of role-plays. Role-plays are useful for teaching and practising social skills because they allow the student to try out behaviors under supervised conditions (Cartledge & Milburn, 1986; Sugai & Pruitt, 1993). Schmidt and Friedman (1991) advocate role-playing because it allows students to take risks and practice new responses in a non-threatening environment. Role-plays help the student make connections between the skill and real-life situations. Begun (1995) sees role-playing as part of the progression from theory to practise to use in the structured learning of social skills. The progression is from modeling to role playing, and then to discussion of performance, followed by use in real life situations.

Some consideration should be given to how to proceed with role-plays. In the beginning it is best for the teacher to give lots of information and structure to the role-play and then gradually increase the student’s input (Kreidler, 1994b). According to Cartledge and Milburn (1986), role play essentially consists of four basic parts:

1. Setting the stage
2. Enactment
3. Discussion/evaluation
4. Reenactment.
The reenactment allows suggestions from the discussion be incorporated and could include different participants.

Along with role-plays, both whole class and small group discussions were incorporated into the lessons to provide opportunities for students to practise their problem-solving skills. “Repetition and practice are vital to the integration of cognition, emotion, and behavior” (Elias et al., 1997 p. 55). I included cooperative learning groups or partner activities in lessons about other subject areas. I built some time for unstructured and group activities into the schedule.

I recognized that prompting and cueing techniques could enhance the transfer of training from the lessons to everyday life (Elias et al., 1997) and so I planned to prominently display the steps to problem-solving chart and refer to it often. I planned to use the questions and promote the “think aloud” strategy to help reinforce the lessons.

**Use of prepared lessons.**

Before I developed my lessons, I researched many lessons, activities and programs that had been developed by others. The selection was numerous and by various authors (Adams, 1994; Begun, 1995; Borba, 1989; Camp & Bash, 1985; Committee for Children, 1992; Elias & Clabby, 1989; Fry-Miller & Myers-Walls, 1988; Kalmakoff & Shaw, 1987; Kreidler, 1994a, 1994 b; O’Neill & Glass, 1994; Schmidt & Friedman, 1991; Shure, 1985; Siska, 1991; Spivack and Shure, 1974).

When I first perused some of the lessons and activities I thought I could piece together a number of prepared lessons and develop them into a program. I looked extensively in a wide range of books searching for the elusive “perfect lesson.” I came to realize that the “perfect lesson” for me had not been created and could not be created by
someone else. I remembered the times when I had been most excited about a lesson. Those times were when I had developed the lesson myself from my background and experience. So I began to consider the lessons and activities that I read as background material. I knew that I would not use any lesson in its entirety but I would use them as springboards to develop my own lessons. I used the lessons and activities as starting points and tried to develop lessons that would be in tune with my students' needs and would fit my teaching style.

Many of the lessons or activities were part of the “teacher-proof curricula” (McCutcheon, 1988) which meant they contained almost every word the teacher might say to the class and well as expected student responses. I realized that my teaching style and philosophy conflicted with using teacher-proof curricula. I wanted my lessons to be fluid and be adaptable to the energy of my students and their responses and reactions. I wanted to meet the unique needs of my students and to build on my strengths and teaching style.

However, there was one lesson, “A Problem-solving Process” (Ministry of Education & Rick Hansen Enterprises, 1995) that I found very useful. It matched my teaching style and was not too prescriptive. It was meant for primary students and used graphic organizers and a real class problem to allow the students to learn about and apply a problem-solving process.

I used the problem-solving steps, the curriculum guide and the lesson I referred to above as my starting points. With those in mind, I developed some objectives. This provided the framework to the unit. I planned to develop lessons and add objectives as
the unit progressed. I have included more about the process I went through in the “Implementation” and “Findings” sections.

Integration with Language Arts.

Throughout my teaching career, I have always tried to integrate different subject areas. I have had most success integrating language arts with social studies or science, so it was natural for me to consider integrating the problem-solving process with reading and writing. There is support for my idea in the research. Elias et al. (1997) state that integrating social and emotional learning with academics “greatly enhances learning in both areas” (p. 61).

There are numerous conflict resolution and social skills programs that include bibliographies of children’s literature (Begun, 1995; Borba, 1989; Committee for Children, 1992; Kreidler, 1994a; Schmidt & Friedman, 1991). Most of these bibliographies were described as “enrichment” or “additional reading” and not referred to in the text of the document. There were two exceptions. Borba (1989) listed books by level and provided possible questions that could be used with a variety of books. Kreidler (1994a) developed lesson plans and activities to use with specific books. I found Borba’s generic questions quite helpful, because they were applicable to other books that I discovered. Kreidler’s activities were less useful because they were keyed to a particular book. If that book was unavailable, the lesson could not be taught. I also found the bibliographies in a book on multiple intelligences helpful (Nicholson-Nelson, 1998).

I used the bibliographies as a starting point for finding books that would be suitable for the unit. I scoured my school library’s bookshelves for books that I thought
might work. I looked for stories that included a clear problem and solution and did not limit my selection to stories that involved an interpersonal conflict (see Appendix A).

Considerations

When I developed the unit, I also had other planning considerations. These centered on the teacher qualities and classroom climate, the appropriateness for Grade 3 students and ways of assessing and evaluating student progress in problem-solving behavior. I also examined the idea of using the problem-solving process as a behavior management tool.

Teacher qualities and classroom climate.

I considered what kind of qualities I would need to teach the problem-solving process effectively as well as what kind of classroom climate would be most conducive to student learning.

I realized that when teaching anything, be it problem solving or other social skills programs, or even mathematics, the teacher needs to be aware that she is not just teaching content; her values also come through. I also understood that the teacher has a great influence on the students not by just what she teaches but how she teaches. Even how her classroom is set up and how the timetable is organized speaks volumes to her students. Some of this learning is part of the "hidden curriculum" (McCutcheon, 1988). This learning is not intended and is transmitted through the everyday events in the classroom.

For a problem-solving program to be successful, I knew I needed to be willing to allow students to try to solve their own problems. I realized that although sometimes it seems that "solving" a student’s problem is more efficient than having him/her work through it, in the long run it is better for the student to be able to be independent with at
least some of his/her problems. I wanted to become a better listener, so that I could better understand my students’ point of view.

Clemes and Bean (1981) and Seligman (1995) warn of the dangers of solving problems for a child. By solving a problem for a child, the adult is giving the impression that the child is not able to solve the problem on his or her own. Hart (1986) states this same idea clearly, “Children need to learn to take care of their own problems and to overcome them. They need to learn to deal with disappointments, losses, and pain so that they know they can survive them” (p. 78).

I believe that one of the dangers of being an adult working with children is to do too much for them. Too much help can be a hindrance. Children can begin to believe they are not capable of a task if the adult takes over and does it for them. Children need to be allowed to make mistakes, to learn from their mistakes, and to understand that everyone makes mistakes.

Through my experience I understood that students learn from a teacher’s example. The research literature helped me understand how influential I could be. How I treat my students, how I behave in my classroom, and how I solve problems can all influence the students’ learning. Goleman (1995) believes in the value of the teacher and how she teaches:

Whether or not there is a class explicitly devoted to emotional literacy may matter far less than how these lessons are taught. There is perhaps no subject where the quality of the teacher matters so much, since how a teacher handles her class is in itself a model, a de facto lesson in emotional competence - or the lack thereof.
Whenever a teacher responds to one student, twenty or thirty others learn a lesson. (p. 279)

In order to teach problem-solving skills and other emotional literacy programs, the teacher needs special qualities. Goleman (1995) states: “To begin with, teachers need to be comfortable talking about feelings; not every teacher is at ease doing so or wants to be” (p. 289).

The teacher is very much a factor in the creation of a classroom climate that is conducive to the successful implementation of a problem-solving or other social skills program. A safe, non-threatening environment where cooperation and respect are present would be ideal. Cartledge and Milburn (1986) state that social skills training should be presented in a relaxed manner and that rapport and a curriculum based on the child’s developmental level is warranted. Elias et al. (1997) recommend that teachers should “engage students as active partners in creating classroom atmosphere where caring, responsibility, trust, and commitment to learning can thrive” (p. 44).

Elias and Clabby (1989) explain the importance of the teacher’s role in building children’s social decision making and problem-solving by encouraging students to think. They feel that the teacher should facilitate students’ thoughtful decision making and problem solving rather than a solve students’ problems. They explain that it is important for the teacher to ask thought-provoking, open-ended questions in an encouraging, supportive way in order to facilitate problem-solving thinking.

The teacher should be willing to practise what she teaches. The Second Step Teacher’s Guide (Committee for Children, 1992) explains how the teacher use of the “think aloud” strategy is critically important to student acquisition of that strategy. The
guide explains that a teacher should find various opportunities throughout the day to model thinking out loud. Elias and Clabby (1989) explain that it is hard for children to infer the thought processes of adults and that the adult’s thinking out loud allows children to see the struggle and the planning that happens as a part of the problem-solving process. Before, after and throughout the unit, I planned to make an effort to share my thinking with the students.

I realized that transfer of problem-solving skills to real-life situations would require flexibility in order to take advantage of spontaneous events to reinforce the problem-solving process. Cartledge and Milburn (1986) recommend that the teacher take advantage of “teachable moments” for impromptu social skill instruction. Elias et al. (1997) explain that it is, “most beneficial to provide a developmentally appropriate combination of formal, curriculum based instruction with on-going, informal, and infused opportunities…” (p. 33).

I also realized that I needed to be flexible so that I could be available to students who needed individual coaching by using a dialoguing strategy. The dialoguing strategy explained by the Committee for Children (1992) and Shure (1985) is used to encourage children to use the problem-solving steps. The teacher asks questions based on the problem-solving steps and restates the student’s comments so that the student can feel ownership in the decision of how to proceed.

** Appropriateness for Grade 3 students.**

I considered whether Grade 3 students would be developmentally mature enough to benefit from learning the problem-solving process. Elias et al. (1997) explain that successful efforts to build social and emotional skills are linked to developmental
milestones. Through my eight years of experience teaching Grade 3 students I have found that most Grade 3 students are of an appropriate age and maturity. The research supports my view.

To be good problem-solvers, students need to be able to see another’s perspective. Selman (1976) explains different levels of perspective taking. Children at Level 2 are able to “step into another person’s shoes” and view their own thoughts, feelings and behavior from the other person’s perspective. They can also recognize that others can do the same. Selman puts the approximate age range of Level 2 at 7 to 12 years. From my experience, most 8 and 9-year-old Grade 3 students fit into this level.

Children may be able to learn a problem-solving process even earlier that Grade 3. Shure (1985) states:

Research has shown that as early as age 4, children can learn that behavior has causes, that people have feelings, and that there is more than one way to solve a problem. They can also decide whether an idea is a good one or not. (p. 1)

Grade 3 children that are working within the widely-held expectations for their age (8 or 9 years) are likely to be mature enough in social responsibility to benefit from learning the problem-solving process. The document, Supporting Learning (Ministry of Education, 1991) lists the widely held expectations in social responsibility. It explains that children age 7-9 years, “continue to understand consequences of own and others’ behavior and are developing the ability to see how others act and what they expect in certain situations” (p. 29).

Children in Grade 3 are likely to have a good idea of what problems they are able to solve and what problems should best be left to others. Shapiro (1997) states that “by
third grade, children’s cognitive maturity enables them to make a more realistic assessment about what they can and cannot accomplish” (p. 23).

**Assessing and evaluating individual student progress.**

I considered how I might assess and evaluate individual student progress in problem-solving ability. I wanted to measure the students’ perceptions and attitudes. I also wanted to find a way to summarize my observations of student problem-solving behavior. I developed a student self-assessment questionnaire and started to develop a rating scale for student problem-solving behavior.

I also developed a student self-assessment questionnaire to help me measure the students’ perceptions of their problem-solving ability and attitudes. The questionnaire consisted of 17 statements similar to: “When another kid bothers me, I try to ignore him or her,” “I get upset when things don’t go the way I want them to,” and “I am good at solving my own problems.” The students will rate their feelings about the statements using a three-point Likert scale. I chose a three-point scale because it is easy for Grade 3 student to understand. A pictorial scale of happy, sad and neutral faces was added to the categories: *yes, sometimes*, and *no* in order to aid understanding (see Appendix C).

I thought the questionnaire could be administered to a group of Grade 3 students without much difficulty if the teacher controlled the pace of the survey by reading each statement as the students completed each item. Students could move a marker such as a ruler of a similar sized piece of cardboard as each question was completed. I planned to administer the student self-assessment questionnaire prior to the problem-solving instructional unit and at the end of the unit and then compare the results.
Before I implemented the unit, I began to develop a rating scale that would allow me to summarize and categorize student problem-solving behavior. I knew that there was a range of behaviors, and I wanted a tool that would help me record the trends and to summarize my understandings. I thought a rating scale might help me record many of the incidental observations that happened throughout the school day, the details of which I usually kept in my head. I considered what I might include based on my experience. I considered using four categories to rate how a child dealt with his or her own problems. The problem-solving behaviors I used as exemplars ranged from “being unaware of a problem’s existence” to “often being able to take responsibility for solving own problems.” The middle categories varied in relation to the amount of adult support the child required to solve an interpersonal conflict. After some thought, I added a fifth category that recognized the ability to be able to help others with their problems.

As I was almost ready to use my rating scale, I became aware of the existence of social responsibility performance standards that had recently been developed by a team working with the B. C. Ministry of Education (Ministry of Education, 2000). The rating scale developed for the second performance standard: Solving Problems in Peaceful Ways seemed to be a tool I could use to replace the one I was working on. I was pleased to note that there were many similarities with my ideas and those found in the performance standard.

The performance standards use four categories to rate student performance. They are, Not yet within expectations, Meets expectations (minimal level), Fully meets expectations and Exceeds expectations. The performance standards can be used in two versions, a “quick scale” that explains the general characteristics and a longer version of
the rating scale that includes examples of behavior that might be observed in each
category. The team developed three levels of social responsibility standards to be used
with Grades K to 3, Grades 4 to 6 and Grades 7 to 9.

The *B. C. Performance Standards: Social Responsibility (draft)* (Ministry of
Education, 2000) Grades K to 3 “quick scale” for *Solving Problems in Peaceful Ways* is:

*Not yet within expectations:*
- In conflict situations, the student often expresses anger inappropriately; blames or put downs others.
- The student has difficulty recognizing problems; may suggest inappropriate strategies.

*Meets expectations (minimal level):*
- In conflict situations, the student tries to state feelings and manage anger appropriately, but quickly becomes frustrated; tends to over- or under-estimate need for adult help.
- The student can identify simple problems; with help, generate strategies.

*Fully meets expectations:*
- In conflict situations, tries to express feelings honestly, manage anger appropriately, listen politely; often relies on adult intervention without considering alternatives.
- The student can clarify problems, generate and evaluate strategies.

*Exceeds expectations:*
- In conflict situations, usually manages anger and expresses feelings appropriately; often tries to solve problems independently, but knows when to get adult help.
- The student clarifies problems, generates appropriate strategies, and predicts outcomes. (p. 21)

There was a close link between the rating scale I was developing and the
performance standard model. I also realized that the performance standard model would
have a wider use, so I decided to use the rating scale: *Solving Problems in Peaceful Ways* to rate the students at the beginning of the instructional unit and to rate them again at the end.
**Problem-solving process as a behavior management tool.**

I also considered how the teaching the problem-solving process could help me in my classroom management, particularly with problems of student misbehavior. It made sense to me that if I was teaching the problem-solving process, I could use it for dealing with problems I had with students. What I already knew through experience was reinforced in a resource guide for teachers titled, *Teaching Students with Learning and Behavioral Differences* (Ministry of Education, 1996) which recommends that teachers approach problems with students from a problem-solving rather than blaming point of view. I emphasized the problem-solving approach by developing a behavior management tool to use in conjunction with the instructional unit on problem-solving.

I developed a worksheet to use when a student made an inappropriate choice or, in other words, “got in trouble.” Although I knew that the problem-solving steps themselves were effective for dealing with a problem as it was happening, they needed modification to be used after a student had made a poor choice. I developed a worksheet that was based on the problem-solving steps and linked to the instructional unit. The goal of using the worksheet was to have the students think about their behavior and develop goals for future behavior.

The worksheet used a similar format to the problem solving steps and was titled: *My Problem Solving* (see Appendix B). The questions and directions were:

1. What was the problem?
2. What did I do?
3. What are some other solutions? (What could I have done?)
4. Choose a solution to use in the future.
The fifth part was simply titled, "Consequences" and was meant as a place to record the things that the student had to do as a consequence of the poor choice.

The questions were meant to guide the student to understand what was happening before they made a poor choice and develop strategies to be able to deal with similar incidents in the future. The student would fill out the worksheet that then formed the basis of a discussion with the teacher about the misbehavior and the determination of consequences.

In the following paragraphs, I will explain how I developed the worksheet and how it is most effectively used.

The worksheet, My Problem-Solving is an adaptation of similar forms that I had developed and used in the past. In order to gain more information about students’ behavior, I developed a form to use with Grade 7 students. The first version basically had three sections with questions added to each category as explanation. The categories and explanations were: Behavior (what I did, what happened); Future behavior (how I can avoid this happening again); and Consequences (what should happen now).

I adapted the form again when I moved to teach Grade 3. The questions became: What did I do? What was wrong with it? What will I do in the future? and Consequences.

Both forms worked reasonably well because they gave me information about the incident as well as providing a written record of misbehaviors and consequences. They also formed the basis for discussion and allowed a "cooling off" period between the misbehavior and the discussion time.

The forms had two problems, however. They neglected to deal with the antecedents of the behavior, and they did not have an instructional link to the classroom.
Without some exposure to possible problem-solving strategies, many students had difficulty writing about how they might behave in the future, since they did not have the skills to think of solutions let alone put them into practice. A common response to: “What will I do in the future?” was “Be good.”

By basing the new worksheet on the problem-solving steps, I addressed both concerns. *My Problem-Solving* worksheet should be easy for the students to understand because it is linked to the problem-solving steps. Because the students will be taught different problem-solving strategies that they can use, the students will have a knowledge base from which to draw on. The worksheet can become one facet of the instruction, similar to a review sheet.

The first question of the worksheet, “What is the problem?” provides an opportunity for the student to explain what was happening before the misbehavior or poor choice and perhaps to explain what he/she was feeling. The context of the problem is shared so that both the student and the teacher can understand it. Shure (1985) explains the importance of understanding and dealing with the real problem and cautions that the teacher should not alter it to fit his or her needs.

When using the *My Problem-Solving* worksheet, it is the student’s perception of what the problem is that is important, not the adult’s. For many adults, the negative behavior is what they would consider the problem. For the child, however, the problem is what caused him/her to behave negatively. An example of this is when a student pushes in line. The teacher’s perspective is that the problem is the student’s negative behavior (pushing), while the problem the student experienced was being bothered in line. The student’s inappropriate choice with dealing with this problem was to push. The student
can then think of more appropriate ways of dealing with being bothered in line and try to use them in the future. The answer to “What was the problem?” tries to get at the reasons and antecedents to the inappropriate choice or misbehavior in order to develop strategies to prevent its occurrence in the future.

In planning the worksheet, I did not include the evaluation questions from the problem-solving steps: Is it safe? How might people feel? Is it fair? Will it work? In previous versions, I included the questions but found that they were awkward and that most students kept the questions in mind while they were choosing a solution.

The final section of the worksheet: “Consequences” is meant to be completed by the teacher with possible input from the student. It is a place to record what consequences have already occurred (such as completing the worksheet) and what consequences are still to come (such as apologizing or a note home). It becomes part of the record keeping that can be used to monitor trends in student behavior.

The worksheet can be used with a range of students. Some students have a difficult time noticing when they are getting angry and need help understanding what they were feeling before they made an inappropriate choice. The worksheet can be an opportunity for the student to develop more understanding of his/her feelings and a starting point for a more comprehensive anger management program.
Implementation of the Unit

I started implementing the unit near the end of October, and continued with a strong emphasis through November and December. When school was back in session after the holiday break, I introduced two more culminating activities: writing problem-solving stories and creating group role-plays. (The lesson schedule is included in Appendix D.) The following section includes detailed explanations of the lessons as well as my observations and reflections.

Problem-solving Steps

This lesson was the first formal lesson in the problem-solving unit. Most of the students were somewhat familiar with the problem-solving steps from previous years, since the steps are included as part of the Second Step violence prevention program (Committee for Children, 1992) that is used throughout the district. The objective of the lesson was for the students to identify the problem-solving steps. I made a worksheet format of the problem-solving steps to refer to (see Appendix E).

I printed the problem-solving questions from Second Step on cardboard chart strips, and made separate strips for the “step” headings. I told the class there were five steps, and that this was a review of the steps that they learned last year in Second Step lessons. I asked the class for ideas of what they thought the first step might be. When a student came close to the given question, I added it to the strip chart. I continued until Steps 1, 2, 4 and 5 were complete, then I went back to Step 3 and gave hints as to what sort of question you might ask yourself while you were trying to decide which solution to use. I added those to the chart as the students contributed ideas that were the same or
came close to the questions. We then read through all the steps together and discussed briefly what each step meant.

I removed the question strips and distributed them to partners throughout the class. I then asked the students to bring the strips to the chart in the correct order. Sometimes the two students read the question aloud before placing it in the correct space, and sometimes the whole class recited the question after it was placed. I introduced the activity sheet by explaining that it was similar to our previous activity. The students cut up the mixed order questions into strips and pasted them in the correct order on another sheet that had only the steps labeled (see Appendix F). After everyone had completed the cut-and-paste activity, I distributed the large question strips again. Partners brought a hidden question strip to the front of the room in what they thought was the correct order. Students in the rest of the class raised their hands if they thought they knew what was on the strip. When the correct (or close) response was received, the question strip was placed in the strip holder.

This lesson was a departure from similar lessons I had taught to previous classes. Instead of the teacher acting as an expert and presenting the chart, I asked the students to generate questions from their own thinking and experiences. By having my students generate the steps, I acknowledged and valued their thinking. Although most of the students had been exposed to the questions in previous years, the ideas they gave did not seem to come from a recollection of the chart but more from logical thinking. The steps were first heard in a child’s version, which helped other children develop understanding. This method allowed my students to connect with the meaning of the questions and made it easier for them to internalize the problem-solving steps.
The students were very enthusiastic about this lesson. I think it appealed to them because of the high level of activity involving thinking, reading, speaking, moving, cutting and pasting, and class interaction. The class thought the last activity (trying to repeat the hidden strip) was like a game. The next day I repeated this last activity to further reinforce the learning.

**Practising the Problem-solving Steps**

After teaching the problem-solving steps, I wanted the class to have a chance to practise using the steps with a real-life problem. First I thought about what my lesson objectives would be before looking to my classroom for a specific problem to use. For this lesson, I wanted the students to practise using the problem-solving steps for a specific problem, be able to think of a variety of possible solutions to problems, evaluate them, and have opportunities to practise problem-solving strategies through role-play and simulations. Since I was going to use a graphic organizer to record possible solutions to a problem in sequential lessons, I thought this would be a good opportunity to introduce it, so that became another lesson objective.

I kept my eye open for possibilities and noticed what sort of problems the children were having. Students were complaining about being pushed in line, being crowded as they worked, and having other kids use their things without asking. I realized that these smaller problems could be addressed by a broader theme: respecting personal space. Because of the nature of the problem, I added as another lesson objective that the students become aware of the needs of others, specifically showing respect for others’ personal space.
There were two parts of the “respecting personal space” problem that I recognized. Some students didn’t have a sense of others’ personal space limits and some students didn’t know how to deal effectively with someone invading their personal space. I planned to address both areas in the lesson.

I started the lesson with a brief discussion of problems about personal space issues that I had observed around the classroom. I told the class that we were going to use the problem-solving steps to see if we could find some solutions and strategies to use. I then asked the class for ideas on how to word the problem. They came up with, “Someone is crowding or squishing you or in your way.” Using the overhead projector, I wrote the problem statement in the center.

I asked the class to think of different ways to deal with this problem. I asked, “What could you do if someone was crowding you?” I added ideas of solutions in a web format around the central statement as the class came up with them. Sometimes I changed a student’s wording to make it clearer but always asked the student if what I was going to write was what he/she meant. The ideas that the class came up with were: tell them you don’t like what they’re doing, say, “Excuse me,” use an “I” statement and tell your feelings, ask them to move, tell them you need more space and tell an adult.

Many of the solutions were similar, although worded differently, but all were responses that the students knew would be acceptable to a teacher. I wanted to include a less satisfactory solution, so I added, “push them.” I explained that I had seen students in other classes do this, and since we were gathering solutions, we should write down ones that we had seen others use, even if we knew that they would not be the best ones and
that we could evaluate them next. By referring to other classes, I avoided accusing any
member of the class of pushing.

Next, we evaluated the solutions by asking the questions: Is it safe? Is it fair?
How would people feel? Will it work? I held up the cardboard strip question cards used
in the introductory lesson beside each idea and asked a student to respond. I asked
students to explain their reasons and asked more than one to respond. Sometimes I asked
the whole class to respond at once, especially to the question, “Is it safe?”

We agreed that all of the solutions except “push them” would work. I put an “X”
through “push them” after we agreed that it did not meet the first criterion; it was not
safe.

We also discussed which solutions we might try first. After asking a number of
students, and after a show of hands, the students agreed that they would tell an adult after
trying at least one, and maybe more of the other solutions. I placed a number two beside
the solution, “tell an adult” and numbered the others with ones.

The next part of the lesson involved role-plays of lining up. I participated in three
role-plays with me as the “bad kid,” pushing into line or not giving enough space in line.
We presented the role-play at the front of the class and discussed afterwards what had
happened and how the “victim” had dealt with it.

Next, I had two groups of three students role-play “lining up” for the whole class.
I gave a lot of direction to these role-plays. They were to have three people in line, with
the back person pushing the second. I directed the second person to talk to the back
person using “I” statements. The first person could get involved depending on whether
he/she was affected by the push or not. We discussed and modeled speaking assertively and firmly as well. Sometimes a group re-enacted its role-play.

The next morning I continued the lesson with a follow-up of similar role-plays dealing with personal space. In these role-plays, a student was to lean over another student’s desk a couple of times. The first time, the student whose personal space was being interfered with asked the person nicely to move, the second time he/she was more assertive. We did three of these. In one of the role-plays, a student who had previously been upset when kids crowded him participated as the “crowder.” The role-play gave him ideas of what words he might use when he was crowded again.

The lesson was successful in a number of ways. The interest level remained high and many students volunteered to participate in the role-plays or the discussion. There was carry-over to classroom behavior, with fewer pushing incidents in line and fewer difficulties with crowding. Students who before would tell an adult if they had a problem with someone being too close began to make their feelings known to others who were bothering them. Those who previously had asked quietly for someone to move without success were able to speak more assertively. Students also became more aware and gave each other more room. Students would respond to requests to move because they understood the problem. There was more of an understanding of the other person’s point of view.

The behavior changes did not happen all at once. The first two weeks, I gave reminders to respect others’ personal space at every “line-up.” Later, I reminded less often. When mistakes happened, I had the students involved reenact the problem situation, and role-play a better way of handling it. Sometimes I provided ideas if they
had none of their own and sometimes they got ideas from the other students around them. I tried to make a problem situation into a learning situation.

The lesson was also successful at the individual level. Before this lesson, when Ross became frustrated at being crowded, he would shout out and become agitated. After the lesson, he developed a number of strategies that he used. He was able to talk to the person who was bothering him and tell an adult if the person persisted. He also sometimes voluntarily moved to the back of the class if he was being bothered. In this case, a change in behavior in one class member was important to the whole class. His previous outbursts had disturbed the whole class, and when he found peaceful solutions to his problem, it allowed for a much calmer classroom environment.

"Big" versus "Solvable" Problems

This lesson was comprised of three parts: a whole class idea generating session, a small group decision making activity and whole class follow-up discussion. The objectives were for the students to become aware of what a problem is, and to distinguish between problems they can solve and those that are out of their control.

In the whole class idea generating session, I asked students to give examples of problems. Every student contributed at least once. The responses were varied and not limited to problems of a social nature. I accepted almost all suggestions and tried to get a range of problems, from small to large. To promote variety, I said things such as, "I’d like you to think of a problem that is not about a vehicle," after a number of vehicle problems had been suggested, and "That’s the last natural disaster that I’ll record," after many disaster problems had been recorded. The problems that the class suggested ranged from
“someone is bothering you” to “the vehicle you’re driving in breaks down” and “your city is hit by a hurricane.” I recorded the student responses on four pieces of chart paper.

I divided the class into four groups of five or six students each. I asked them to consider the questions: “What are some problems that you or a person like you could solve?” and “What are some problems that others (e.g., adults) need to solve?” Working cooperatively, the groups put a sticker beside the problems that they decided were solvable by persons like them. The charts circulated to all groups.

The next day, we examined the charts in a whole class follow-up discussion. We categorized the problems into three types: problems all thought could be solved by themselves or people like them, problems some thought could be solved and problems that they thought should be left to others to deal with.

Many of the problems were simple to categorize. For example, all groups agreed they could solve, “someone is bothering you” and not, “your city is hit by a hurricane.” Some statements were not as easy to decide upon since they could be interpreted several ways. “It’s raining” was one of these statements. Some students felt they couldn’t do anything about the weather, while others thought about ways they could deal with the weather so it wasn’t a problem. “It’s raining and you want to go outside” would have been a clearer statement. Although there was some disagreement on a few of the problems, the students generated many examples to clarify the difference between a “big” and a “solvable” problem.

The students were active and engaged throughout the lesson. There was excellent participation in the whole group discussion with everyone contributing at least one idea. The discussion was lively; I needed to limit a few students’ participation to allow others
a chance. We ended the idea gathering when the four chart papers were full, even though
the group still had more ideas.

In the small group work, different groups had different ways of deciding which
problems were "solvable." Some groups discussed each item and voted on it, some had
one or two people leading and making most of the decisions, and one group distributed
stickers to each person and took turns placing them beside the "solvable" solutions. There
were no big difficulties, although for another time, I would make smaller groups to allow
for greater discussion, and give more direction on decision making strategies.

The follow-up discussion went well, even though some groups couldn't recall
their decisions on every problem. For another time, I would give each group a certain
color of sticker, because it would help to be able to ask a group to explain their thinking.
It would also be better to conduct the follow-up discussion on the same day as the small
group work.

The lesson on "big" versus "solvable" problems was successful because it helped
the students clarify what a "problem" was for the sake of this unit. When I introduced the
problem-solving writing assignment, it was easy for me to explain what sort of problem
to consider by referring to this lesson. In the writing assignment, everyone successfully
chose and wrote about a problem that was "solvable" by a person like them. I also
referred to this lesson when explaining the type of problem to choose in the later lesson
on problem-solving role-plays.

Explaining My Problem-Solving Worksheet

In this lesson, I introduced the class to the problem-solving worksheet, My
Problem-Solving (see Appendix B) that would be used if a student made a poor choice
when solving a problem. The worksheet became a classroom management tool that was
linked to the instructional unit. The goal of using the worksheet was to have the students examine their behavior. The questions guided the student to understand what was happening before they made a poor choice and to develop strategies for dealing with similar incidents in the future. I showed the class a copy of the worksheet on the overhead projector and explained each section briefly. Even though only a handful of students would probably need to use it, it was important to let the whole class know about it and let everybody know about some of the consequences of poor choices. It also further reinforced the importance of the problem-solving steps.

This was more of an informational lesson and a brief introduction of the worksheet. I have explained how it was used in the “Findings” section.

Problem-solving in Stories

I hoped that through reading about problem-solving in children’s literature, the students would increase their awareness of different problem-solving strategies. One objective of the lesson was for the students to examine the problem-solving strategies used by fictional characters in children’s literature. The other objective was for the students to be able to show their understanding of the stories and the problem-solving strategies by responding to a prepared worksheet.

This portion of the unit continued over several weeks, and developed into an individualized program with students responding individually to stories they chose from the selection of “problem-solving” literature. All of the selected stories had a problem that the character worked to solve. Many but not all of the problems involved interpersonal conflict. In every story but one, the problem was solved at the story’s completion. Most
of the selected stories had interesting illustrations and would be considered picture books. Some stories were found in the classroom anthologies or readers, while others were from trade books found in the school or public library. Most of the stories that were used for this unit were at approximately the Grade 3 level, with some easier and some harder. The children's "problem-solving" bibliography (in Appendix A) includes the 34 stories that were used in this unit as well as others that would be suitable for future units.

I applied the individual instructional approach gradually. First, I had the whole class work on the same story that I read aloud to them. Next, I divided the class into two groups to read and respond to a selected story from the classroom anthologies. The groups then traded stories and responded to their third story before they had a choice of stories to read from the selection of "problem-solving" literature.

For the first activity, I wanted to have the whole class work on the same story. I chose a story that had accompanying slides, that way all the students could enjoy the illustrations as I read it aloud. The story was a traditional folk tale, *It Could Always Be Worse* (Zemach, 1976) about a family whose home is so noisy that they went to a wise man for advice. Similar versions of this folk tale are *Too Much Noise* (McGovern, 1967) and *The Noisy Hut* (Zolotow, 1978). The problem and solution of the story are easy to understand, but can also be explored at a deeper level, with discussion of perception and point of view.

I introduced the story with a whole class discussion. I asked the students what they would do if their house were too noisy. I webbed their solutions around the central problem in the same way that I had for the "practising the problem-solving steps" lesson. Their solutions were: "go to sleep," "go outside," "talk quieter," "turn off the lights,"
“turn off things that are noisy,” and “tell people to be quiet.” We evaluated the solutions using the questions from the problem-solving steps: Is it safe? Is it fair? How would people feel? and Will it work? The class agreed that all of the ideas met the criteria and might work. I then explained that in the story we were going to study, the family had another solution. We viewed a slide show of the book’s illustrations, while I read the story aloud. We discussed the story and completed the Problem-Solving in Stories worksheet (see Appendix G) together. Each student completed his/her own worksheet as I wrote the group responses on the overhead projector copy of the worksheet. The Problem-Solving in Stories worksheet was used with all the other stories, so this lesson had the dual purposes of strengthening the students’ understanding of the story and familiarizing them with the worksheet they would use to respond to other stories. The worksheet was influenced by a lesson idea in Borba’s (1989) book. It contains the following questions and directions:

Title:

Main character(s):

1. What was the problem in the story?

2. Tell about how the character or characters felt and why.

3. Tell how the character(s) tried to solve the problem.

4. Tell how the story ended.

How did the characters feel? Was the problem solved?

The next class, after everyone had had an opportunity to finish their worksheet, I led a class discussion about the story. In the story, the wise man suggested that the family bring some farm animals into their home. When the man returned complaining that
it had not improved the wise man told him to bring in more animals. Soon all the animals were in the house. The wise man then suggested that they take all the animals out. The man and his family could not believe how quiet it seemed then. I made a graph on the chalkboard and asked for student input to indicate the noise level before the animals were brought in, when the animals were in the house, and after the animals were removed from the house. We concluded that the noise level at the beginning of the story and at the end were probably very similar, although not all students fully grasped that idea. I challenged the group to explain why the family was happy at the end of the story when the noise was the same. Student responses included: “they thought it was quieter,” “they knew it could be worse,” and “they were happy that the animals were gone.”

Next, I introduced the terms, *perception* and *point of view* and discussed their meaning. I talked about how a person’s perception or point of view could change depending on a person’s experience. I explained that how a person thinks of a problem can change and that the family’s perception of the noise level had changed, which solved their problem. This became an introduction to a later lesson on point of view.

The next day, I divided the class into two groups, to read and respond to two selections from different classroom anthologies. I divided the class because I did not have enough copies for everyone to read the same story at once. The groups then exchanged books and read and responded to the other selection. Since every student responded to the same stories, I could use student work as an example to help weaker students learn how to use the worksheet and to learn the expectations for the later stories. I expected the students to be accurate with their summarization, use full sentences and correct spelling before the worksheet was considered complete.
We continued this process of reading a story, responding to it on the worksheet, completing corrections as needed and going on to another story. To make it easy to organize, I made class sets of worksheets in different colors. The first one was white, the second yellow, the third blue, etc. This was a good way to keep track of how many stories the children had completed, and although the main goal wasn’t to see how many stories one could complete, it did provide a motivation for the students to stay focused and on task.

Another thing that kept the students motivated was that they were able to choose from a variety of stories. Sometimes a student would recommend a book to a peer; other times I would send a student to talk to a person who had read a particular book so that student could hear another opinion and decide if he or she wanted to read it.

Although the worksheet, *Problem-Solving in Stories* was the same for each story that the students read they did not seem to become bored with it. Many students needed the repetition to help their understanding and improved their responses with each successive story. They could measure their own improvement as they recognized that they were able to complete the worksheets more easily with clearer responses. Most students had a feeling of accomplishment when they saw their work compiled in their folders.

Most of the class worked with the problem-solving stories and worksheets for at least three 30-minute sessions a week for four weeks, for a total of 15 sessions. Most students responded to at least 8 stories with six students responding to 12 or more stories. However, there was a group of four students who were working on a modified program with the student services teacher and did not have as many sessions. In a group
setting, they completed 4 stories that were at their reading level. Every student read more stories than they responded to. They read them in individual or shared reading time as well as when they had spare time after they had completed their assigned work.

In order to wrap up this portion of the unit, I planned a summary activity. This activity is explained in the “Findings” section.

**Problem Cards**

The main emphasis of the “Problem cards” lesson was to deal with the second problem-solving step: “What are some solutions?” The objectives for this lesson were for students to be able to think of a variety of possible solutions to presented problem situations and to be able to use a graphic organizer to record these solutions. My idea for this lesson was based on a conflict resolution activity explained by Adams (1994).

For this lesson, I elicited ideas for the problem cards through a short class discussion prior to the actual lesson. I jotted down ideas as the students thought of problems that had happened or could happen on the playground or in the classroom. I wrote these ideas into “scenarios” using simple language that the students could understand. I selected realistic problems that a Grade 3 student could be expected to be able to handle. Included in the examples were problems that had recently caused difficulty for a few students in the class. I printed the cards out in size 18 font, copied them and cut them into rectangles (see Appendix H). The scenarios were:

- You’re playing by yourself with the class ball and another kid keeps grabbing it from you.
- You’re walking towards the playground and an older kid starts teasing you and calling you names.
• You’re playing tag and kids keep saying they weren’t tagged when you think they were.
• You’re walking out to recess and a kid rushes by and grabs your snack.
• You’re trying to read and the kid beside you keeps talking to you.
• Your friend promises to play with you at recess then goes off with other kids.
• One kid in your group bosses everyone else and decides who can play the game and who can’t.

At the beginning of the lesson, I went over an example with the whole class of an actual incident that had happened on the previous week to my 12-year-old daughter and how she had handled it. I glued the problem in the middle of an 11 by 18 inch sheet of paper and wrote the students’ ideas for solutions in a web format radiating from the central problem. This was a similar format to the one that was introduced in the previous lesson: “Practising the problem-solving steps.”

The example was: “You’re sitting on the grass and a kid grabs your coat and runs away with it.” The class came up with these ideas as possible solutions:

• go to the kid and ask for it back
• say “give it back”
• run after the kid
• stop him or her and ask for it back
• tell an adult
• get a new coat.
I continued to probe the group by telling them that my daughter had not done exactly that. They added: “talk to kid later” and “ignore it.” I told them they were close and I would share the details after we had discussed our ideas.

We had a brief discussion about which solution the students thought they would use and why. I referred to the evaluation questions from the problem-solving steps to help with the decision-making. Most students thought they would ask for it back, but there was disagreement over whether it was a good idea to chase the person. The class agreed that getting a new coat was a solution but not one that they would try.

I then explained what my daughter had done. She had ignored the boy who had taken her coat. She talked to him when he returned to ask her why she was not chasing him and why she did not seem angry. She let him know that she would be letting her teacher know if her coat was not returned. He was surprised with her calmness and returned her coat.

I put the students into five groups of four students, with one group of three. Each group had the choice of problem to work with. The groups were to write as many possible solutions to the problem as they could in a web format. Each group responded to two problem cards in the first session.

The next day, I read out every solution on the three group charts that dealt with: “You’re playing by yourself with the class ball and another kid keeps grabbing it from you.” Then I asked individuals which choice of solution they would use. Most said they would share the ball if that happened to them. I asked the question, “When would you tell an adult about this problem?” The six students that were asked to respond agreed that they would try talking to the other child first, and tell an adult if it did not work.
I kept the other responses and shared them after the strategies in the conflict resolution program *Kelso's Choice* (O'Neil & Glass, 1994) were introduced. I also repeated the problem card lesson later in December, so that groups had a chance to respond to two more problems. I have included my observations to that lesson in the "Problem Cards Two" section. The analysis and comparison of the group responses to the problem cards are included in the "Findings" section.

The lesson "Problem Cards" was effective because it included active participation of the students and dealt with problems that the students could relate to. In the whole class discussion, students' interest was high because they were eager to find out what my daughter had done to solve her problem. In the small group work, almost everyone actively participated. The short follow-up discussion was successful because most students were interested in how their responses compared to other groups as well as in ideas of how to deal with this real-life problem.

This lesson allowed the students to stretch their thinking and to understand that there were many ways to solve a problem. There was also good interaction in the small groups. Students who had good ideas or were strong problem-solvers shared their ideas. The other students benefitted from hearing ideas from a peer’s voice rather than from a teacher or other adult. The students’ solutions were more authentic. This was a very rewarding experience for me. I think it is important that students learn from each other. I would rather be seen as a facilitator than a "giver of knowledge."

Every group was able to use the web format for recording solutions successfully. Some groups designated one or two people to write the group’s responses, while other groups had individuals write their own ideas. Generally the students were seated around a
couple of desks. By writing the solutions radiating from the center problem, it allowed more than one person to write at a time and from any direction.

One small group had some difficulties when one student would not participate and was distracting another member of the group. A different student from that group complained to me. I explained to the group that it was important for all members to participate and that they should look at the problem with one member in the same manner that they had with the problems on the cards, except that this one was real-life. They decided to talk to the person and to take turns and expect a response. The student became more involved and stopped his distracting behavior. I was pleased with the outcome because although I supported the group and gave them direction, I did not solve the problem for them. The student was more cooperative the next time the group worked on the problem cards.

The short follow-up discussion demonstrated a number of things to the students. Students were able to see that as a group they were able to generate a variety of solutions. They recognized that there were different ways of approaching problems as well as similarities. They could see that some groups used different wording but had essentially the same idea.

I chose to discuss the “classroom ball” problem in depth because two-thirds of the class had responded to it and because it was derived from recent difficulties some of the students were having. After this lesson, there were no further problems reported with the classroom ball. Although I had set up the lesson with the objective of getting the students to think about a variety of solutions to problems, it also helped students develop effective strategies to deal with a specific situation that they could use immediately.
I chose to share the group responses to the other problem cards after the strategies in the conflict resolution program *Kelso’s Choice* (O’Neill & Glass, 1994) were introduced, so that the students could see the similarities between their ideas and those explained in the program.

I was not happy with one of the problem cards, “You’re walking out to recess and a kid rushes by and grabs your snack.” One group responded to it but had difficulty thinking of ideas. In discussing it with them, they agreed that although they had never experienced that problem, they would probably ask an adult for help. They wondered why the student had grabbed the snack: Was the student hungry? mean? I eliminated this card from the choices because I realized that it did not meet my criteria of being a realistic and easily understood problem that a Grade 3 student could be expected to be able to handle.

**Linking Problem-solving Strategies**

In this lesson, I wanted the students to be able to make connections between the strategies they had thought of in the “problem cards” lesson and those found in the conflict resolution program, *Kelso’s Choice* (O’Neill & Glass, 1994). I hoped that the clear language of the program would reinforce prior learnings as well as introduce new ideas and would help the students develop a repertoire of problem-solving strategies.

The program, *Kelso’s Choice*, is easily understood and practical because it uses simple words and ideas. It reinforces the idea that students can think for themselves and introduces terms students can use in everyday conversation and put into action easily. Although the program has many components including stories and activities, I only used the terms, caricatures and poster to integrate with this unit.
The program features caricatures of a frog named Kelso. Nine strategies are presented with a frog picture to represent each. The poster of the strategies shows them in a circle, so no preference is given to any one strategy. The program’s name refers to the choices a person has when confronted by an interpersonal conflict or problem.

I introduced the conflict resolution strategies informally by showing the class three caricatures as decorative parts of a spelling worksheet and asking the class what they thought they meant. The students were able to explain the main idea of each one and came close to using the program’s terminology. A few students with vivid imaginations told the class a story about what the frogs were saying to each other and what they thought had happened right before the picture. When we determined what each caricature meant, I asked students to give me some ideas of when they might use that solution.

The next day, I introduced the terminology of the program in much the same way as with the spelling worksheet. I showed each caricature on the overhead projector with the words hidden. I asked the class to guess what the solution “slogan” was. The students’ ideas were almost the same as the program’s. I then asked the class for suggestions about in what kind of situation or problem they might use a particular strategy.

The next day, I planned to link the strategies from Kelso’s Choice with the small group solutions to the problem cards. I read aloud the different groups’ solutions to a specific problem card. We compared the student ideas with the strategies from the program. The students could see that they had thought of many of the same ideas, they had just used different words. For example, I explained that saying, “Let’s share” was essentially the same as “make a deal.”
We summarized the group solutions for each problem by stating which strategies from the program were used. For example, for the problem: "You're playing tag and kids keep saying they weren't tagged when you think they were," two groups' responses included possible solutions that would fit with strategies from *Kelso's Choice*. Those strategies were: "tell them to stop," "talk it out," "go to another game" and "ignore it."

Although student involvement in this lesson was limited to listening and participating in whole class discussions, the lesson strengthened the students' understanding of possible strategies to use and allowed them to make connections between their ideas and the strategies from the conflict resolution program. They also developed an understanding about what each strategy meant and when they could use it as a solution to a real-life problem. Comparisons between the two "problem cards" sessions (in the "Findings" section) showed that the groups were able to think of more solutions to the presented problems and that many of the responses used the terminology from *Kelso's Choice*.

**Student Journal Writing**

I collected two journal entries from each student in order to gather information about the students' thoughts about the problem-solving process. I asked the students to write a journal entry before any formal instruction about the problem-solving process had taken place because I hoped it would give me an indication of individual students' problem-solving skills. I wanted the students to write about a problem situation and how they handled it, but I did not want to introduce the terms "problem" and "solution." I chose to have the students complete a sentence that started with "If another kid bothers me, I ..." because I thought every student would have experience with this problem. I
presented the sentence starter by printing it on the chalkboard and briefly discussing what it meant. Although I usually promoted discussion of a topic before the students wrote about it, I limited discussion this time, since I thought the journal might be useful as an assessment tool and I wanted an idea of each individual’s ideas. Shortly into the work time, one student asked if she could write about different people who bothered her. I got the attention of the group and made that suggestion for everyone. Many of the students used her idea. It changed the focus slightly, but it made it possible for everyone to write about a situation when someone was bothering him or her. The students had experience recording their ideas in a journal. It was a weekly activity in my class; sometimes I provided the topic and sometimes the students would choose their own topic. I transcribed the journal entries so I could compare them to later entries.

I asked the students to write a second journal entry about a month into the project and after I had presented the “linking the problem-solving steps” lesson. My goal was to see if the students could make connections between the strategies that had been presented and real-life situations. The topic was a little less restrictive than the sentence completion and was posed as a question: “Can you think of situations where you have or could have used one or more of the problem-solving strategies?” I wanted the students to think about and record specific situations where a strategy might work. I had presented this sort of question to the class as we discussed each strategy, for example: “When would ‘walk away’ be a good strategy?” but this was the first time that I asked the students to write down their ideas. I explained that the situations should be realistic and could be plans or have really happened. I transcribed the entries in order to compare them to the earlier entries. The comparisons are explained in the “Findings” section.
Point of View

In order for students to fully understand the strategy “make a deal,” they need to be able to understand another person’s point of view. This lesson attempted to strengthen the students’ understanding of point of view and how perceptions can influence a person’s thinking.

I selected two stories to read aloud to the class and had students respond to sentence starters in order to have them recognize different the points of view that the characters had. Some students had already read the stories since they were included as selections for the “problem-solving in stories” lesson, but since they were popular and well illustrated they didn’t mind hearing them read again. The stories were *Rainbow Fish and the Big Blue Whale* (Pfister, 1998) and *The True Story of the Three Pigs* (Scieszka, 1989).

After listening to the stories, the students copied and completed the following sentence starters. For *Rainbow Fish and the Big Blue Whale* (Pfister, 1998) the sentence completions were: “The fish thought...” and “The whale thought...,” for *The True Story of the Three Little Pigs* (Scieszka, 1989) the sentence completions were: “The wolf...” and “The newspaper reporters...”

After each person had responded individually, we had a class discussion about how the character’s points of view differed. We also discussed how a person’s perception or point of view could affect what they think of a problem or can even create a problem, as was the case with *Rainbow Fish and the Big Blue Whale* (Pfister, 1998). I explained to the class that there are often two sides to an argument and that a solution can often be
reached if a person is willing to see the other person's point of view. Students gave examples from their experience where point of view made a difference to a problem.

This lesson was a short introduction to point of view, a concept that is important to understand in order to be able to compromise or "make a deal." Although the idea was not fully integrated into every student's problem-solving repertoire, the stories provided a starting point for a fuller understanding of the concept.

Problem Cards Two

A couple of weeks after the first problem cards lesson, I repeated the activity. The groups included the same members as previously. Each group completed two different problem cards. My explanation this time was very brief. Groups got started quickly and stayed on task. There was generally better individual participation than in the earlier lesson. This was especially noticeable in the group that had an uncooperative member in the last session. This time that student participated actively. Most groups thought of more strategies for each problem card in less time.

I think there were a number of reasons that the lesson went smoother. One reason was that the students were familiar with the activity, so the instruction time was brief and there was an increased comfort level with the task. The students were also more comfortable with each other, since the groups were based on the class seating arrangement that had stayed the same for the last three weeks. The students also were more familiar with possible problem-solving strategies that were presented in previous lessons. They had more background and experience to draw on. The analysis of the group responses to the problem cards is included in the "Findings" section.
Problem-solving Role-plays

The objective of this lesson was for the students to have an opportunity to practise problem-solving strategies through role-plays. It was set up as a cooperative group lesson, so in a sense the groups were solving the “problem” of composing and presenting a role-play for the class. It became problem-solving about problem-solving.

This lesson took place in early January. The class had been involved as participants or audience members in a few role-plays prior to this, specifically when we role-played “respecting personal space” in November. They were also very keen users of the classroom’s dress-up center when it was available to them. However, this was the first time all students were involved in presenting a role-play.

The preliminary instructions were very brief. I printed them on the chalkboard as I discussed them. The first step was to find a place to work. I pointed out various suitable locations in the classroom. The next instruction was to choose a problem to do. I explained that the problem should be one that might happen in the playground or the classroom. I also reminded the class about the lesson about “big” versus “solvable” problems and that they should plan to role-play a problem that a person like them could solve. The next step’s simple instruction was to decide who would be who. Then they were to make up the words and actions. The final steps were to practise the role-play and perform it for the class.

After the instructions, I randomly pulled strips of paper printed with student names from an envelope and glued them to a sheet of paper. I made seven groups of three and a group of two. With a brief reference to the steps listed on the chalkboard, I then set
the class off to work. Every student willingly found the others in his/her group. Within minutes, groups had found places to work and were discussing their ideas.

One group of two boys and a girl started with an idea of the two boys arguing over who could use a toy. They were not sure how to solve the problem or how to involve the girl in the role-play. They decided to have the girl approach the boys and ask what the matter was. Without directly telling them what to do, the girl suggested that they could share the toy with one person. They agreed and the problem was solved. What was especially interesting about this group’s work was how it mirrored real-life. The two boys often needed direction to solve problems and had a difficult time thinking of solutions independently. They were willing to work toward a solution but often didn’t know how to proceed. The girl, on the other hand, was a strong problem-solver and exhibited her mediation skills using a non-threatening tone of voice. The group had a little extra time before we were ready for the presentations, so they made up another role-play with a similar theme. Both role-plays were well received by the class and allowed me the opportunity to briefly discuss peer mediation. I discussed that in the role-plays the girl had acted as a mediator by asking questions, getting full information and suggesting a possible solution, but leaving the decision to the boys. I could not have orchestrated better examples of peer mediation if I had planned it.

Another role-play that was similar to a real-life situation involved two boys and a girl. One of the smaller boys of the class was cast as the “victim.” The other boy and the girl taunted him about his size. The smaller boy asked them to stop and made a specific statement, “I don’t like it when you call me names.” When the bullies continued, he said, “Stop it!” in a very firm voice. The boy who was bullying was visibly taken aback, his
body language showed actual shock at the assertiveness of the response. The girl did not repeat any further comments. When the boy bully gained his confidence, he continued to taunt. The smaller boy had another comeback, “I’m going home now, and don’t come to me when you don’t have any friends to play with.” In the follow-up discussion, I commended the smaller boy for being so assertive and putting up with being called names. In the month that has followed that role-play, the smaller boy has continued to gain confidence, and the other boy has been kinder and less of a bully to his peers.

In one role-play, the situation the students portrayed was similar to one that a couple of the group members had recently experienced. There was one major exception, however, in that the roles were reversed. In real-life the boy acted negatively and in the role-play he was the victim. The role-play was of a boy and girl who were working at adjoining desks. The girl pushed the boy almost out of his chair. The boy responded by telling the girl to stop. When the girl continued, the boy asked again. The girl still pushed, so the boy went to the teacher for help. The problem was solved through teacher intervention. It was interesting to note that in future weeks, there were no further incidents of that particular boy pushing the student that sat beside him. I think it helped him experience the victim’s point of view. This role-play was also interesting because it was based on the earlier lesson of respecting personal space.

Most of the role-plays were put together by the students themselves, with little teacher interference. I did, however, offer direction to the following group. The group members spent a long time making props so their role-play looked authentic but spent little time thinking of how they might solve the problem. The role-play involved a boy and two girls throwing snowballs and yelling at each other. Although in the role-play the
girls were exhibiting as much negative behavior as the boy, the girls' first solution was the
typical playground response, "We're going to tell!" I suggested they think of some better
words to use. Their modified role-play included the girls telling the boy to stop as well as
telling him what they did not like about what he was doing.

I needed to be more specific with my directions with one group. Their planned
role-play had a girl playing the part of a teacher solving a problem two boys were having.
When I asked the group why the boys had not tried to work something out between
them, they replied that they wanted to have a part for the girl. I explained that the girl
could be involved in planning the play rather than actually being in it. They changed their
role-play to include one boy solving his problem by talking to the other one. If I repeat
this lesson, I will explain that the important thing in the role-play is an effective solution,
and that might mean that not all group members perform.

The two other role-plays were similar because they involved a person who was
being bothered by others. In one role-play the girl asked the boy to stop twice, and when
he persisted, went to an adult for help. In the other, a girl continued speaking assertively
to the children that had taken her ball until they returned it.

After every role-play, I led the class in a brief discussion of the problem-solving
strategies the group used. These discussions were short because I did not want the
discussions to detract from the presentations themselves. The discussions following the
role-plays about mediation were a little longer because of the new ideas they presented.

In one instance the follow-up discussion focused on the authenticity of the role-
play. In it, a boy pushed two girls who are playing on a snow bank. The girls used very
clear language to let him know how his behavior affected them. When audience members
commented on their strong acting, the group explained that they had first thought of a different scenario and had practised it three times so each member role-played every part. In that way, they figured out who was best suited to a particular role. When they made up their second role-play, they took advantage of what they had learned to develop a very effective role-play.

The students were very enthusiastic about this lesson. Some groups who finished early willingly made up other role-plays. The class stayed attentive throughout the presentations and the brief discussion following each role-play. When I planned this lesson I expected it might take 45 minutes to an hour. In reality, it took an hour and a half, with most of class wanting to continue even though it was time to go home. Almost all of the students raised their hands when I asked them whether they would like to repeat this activity.

Talking was involved in all the solutions in every role-play. Sometimes the talking was in conversational style, although there were many examples of assertive tone and language. Some of the “actors” used assertive body language as well. Two role-plays used a form of peer mediation to help solve the problem. Two other role-plays included a group member playing the part of a teacher. In both instances, the “teacher” became involved after the children had tried to solve the problem themselves.

Through these role-plays the students gained problem-solving experience in a number of ways. In the first stage of the role-plays, the students were involved with an actual “problem” situation of planning the role-play. Decisions had to be made on a number of things including what problem they wanted to portray, who should have what role, and what words and actions they should use. There was a lot of thinking and group
interaction at this stage, while group members helped each other decide what to say and how to say it.

When the group members acted out their role-plays, they experienced their chosen “problem” from one point of view, which varied from aggressor to problem-solver. Although not every person had a chance to role-play every perspective, it was especially interesting when a student was cast “out of character,” such as when a normally aggressive student played the part of the victim. I believe those role-plays contributed to greater understanding for those students by allowing them to experience another point of view.

Learning also took place when the role-plays were presented to the class. Through viewing their peers in realistic situations, the students gained another problem-solving experience. These role-play examples were more authentic than a similar video presentation could ever be because they involved their own classmates. Through the discussions that followed each role-play presentation, the students could make connections with real life situations and consider how they might deal with a similar problem.

Another benefit of this lesson was that the class had a shared experience. Everyone had participated in the planning, presentation and viewing of the role-plays. This lesson contributed to the students’ development of effective problem-solving skills.

I chose to do the lesson on role-plays after the students had been exposed to a number of problem-solving strategies to lessen the risk that a negative behavior would be strengthened by the portrayal in a role-play. Because of the previous lessons, I was fairly confident that the students would be able to show effective problem-solving strategies.
also felt that the students were comfortable enough with each other so that the composition of each group would not make a lot of difference to how each group functioned.

I noticed that both the role-play participants and the audience gained from the role-play experience. The participants had direct experience practising the problem-solving strategy and the audience benefitted by viewing the strategy. I was cautious of focussing the attention on the solution, not the problem. It is possible for the “bad” behavior to be emphasized through the role-plays. In directed role-plays, I worked to negate this influence by having the participants repeat a similar situation with all the participants acting positively. In the discussions following the other role-plays, I drew attention to the appropriate behavior.

**Student Writing: Problem-solving in Stories**

I adapted the worksheet *Problem-Solving in Stories* that the students used to respond to the children’s literature selections for use as a planning sheet for writing their own stories. I simply changed the questions slightly. “What was the problem in the story?” became “What is going to be the problem in the story?” I changed “Tell how the character(s) tried to solve the problem” to “How will the character(s) try to solve the problem?”

I presented the worksheet (see Appendix I) to the students and explained briefly how it was similar to and different from the one we had used with the problem-solving stories. I explained that this was a planning sheet for a story that I wanted them to write. The story needed to have a problem that the character tried to solve. I referred back to the lesson on “big” versus “solvable” problems and emphasized that the problem they chose
to write about should be “solvable”. I gave the students the option of having their characters be human or animal.

Most students found the worksheet easy to use and were able to start writing their story in the second session. A small number of students had a hard time thinking of ideas but with encouragement were able to come up with an idea. Three of these students found it easier to write about a situation that had happened to them than to imagine one. We continued with the writing and editing throughout a week for a total of four or five half-hour sessions. I transcribed the stories so I could study them (see Appendix J). My analysis of the students’ problem-solving stories is included in the next section.

When every student had completed his or her story we shared them in with partners or groups of three. The students took turns reading and listening, then formed new groups. Every person read their story to at least five other students and listened to at least eight. I found this was a good way to promote interaction between students as well as providing a way of sharing the stories aloud that was a less intimidating than in front of a large group of people.
Findings

I looked at a number of indicators to help me determine if the students were better able to solve problems independently. Student journal entries provided valuable insight into the students’ problem-solving behavior. I compared and examined two journal writing samples from each student that were written about six weeks apart. I also compared the small group responses to the hypothetical situations posed on the “problem cards” from two sessions that the students participated in that were about a month apart. I examined the stories the students wrote using the planning sheet based on the problem-solving steps. I also compared results from a student self-assessment questionnaire that I administered before the unit and again near to the unit’s conclusion. Along with the other data, I used the rating scale for Grades K to 3 from the *B. C. Performance Standards: Social Responsibility (draft)* (Ministry of Education, 2000) entitled: *Solving Problems in Peaceful Ways* to help me organize my observations and general impressions about individual student progress in problem-solving behavior.

Also in this section, I have included my observations and reflections about the process I went through to develop the lessons as well as the use of *My Problem-Solving* worksheet as a behavioral management tool. I comment on other ongoing considerations of the unit in the final part of this section.

Analysis of Student Journal Writing

I examined the students’ journal entries for indications of improvement in problem-solving behavior. Writing is not always an indication of behavior, but it can give an insight into the student’s thinking. In their journal entries, many students showed they
had increased their repertoire of problem-solving strategies. In the following example, Sam is unsure of how to deal with a problem in his first journal entry, but has more ideas in his later entry. The students’ names have been changed to insure anonymity.

When my brother bugs me it hurts really hurts me. When another kid bothers me I don’t know what to do. (Sam, Oct. 12)

When I got a problem I ignore it and I get in lots of problems but we make a deal and when I hurt someone I apologize and sometimes I just walk away. (Sam, Nov. 30)

Improvement was also evident with students that had known some effective strategies before the implementation of the unit. Both Kayley and Nancy wrote about more than one problem-solving strategy in their October journal entries and were able to expand their ideas, as their later entries show.

When I am at home my brothers bother me so I usually tell my mother. When another kid bothers me during work time I say please stop and if they don’t stop, I tell the teacher. (Kayley, Oct. 12)

When someone takes the ball away from you, you talk to him and ask him if they want to play. If someone is playing unfair, go to another game. If someone is calling you names, ignore it. (Kayley, Nov. 30)

When my sisters bother me I tell them to stop and if they don’t stop I either tell my mom or talk to them. Kids don’t bother me at school. (Nancy, Oct. 12)

If someone yells at you or bugs you ignore it. If you’re playing a game and people keep fighting go to another game. If you get in a fight with your best friend then you
could apologize. If someone takes something from you could talk it out. (Nancy, Nov. 30)

Some students showed a willingness to solve a problem themselves rather than relying on adult intervention and could write about ways they might behave in different situations. Both David and Bill showed growth in this area, as can be seen in the following journal entries.

When another kid bothers me after school, I tell an adult. (David, Oct. 12)

When someone bothers you you tell them to stop. When someone takes the classroom ball, you make a deal. When the kid beside you keeps talking, talk it out. (David, Nov. 30)

When another kid bothers me during spelling I don’t get a good mark I tell the teacher and tell the teacher to move them. When another kid bothers me during P.E. I just tell the teacher. (Bill, Oct. 12)

When I hurt someone I apologize. When two kids want to be goalie then I let them share for 15 minutes each time. (Bill, Nov. 30)

Some students could relate the problem-solving strategies to their own life. They wrote about something that had actually happened to them and how they had dealt with it.

Once when I was playing with my friend and I scored a goal he said my goal did not count but I did not whine back I just ignored it. (Matt, Nov. 30)

I used talk it out when me and my best friend got mad at each other. We didn’t play with each other for two days. It wasn’t fun at all. (Carol, Nov. 30)
When me and my friend get in a fight I forget about it and the next day I apologize to her. When my brother keeps pushing me I tell him to stop. (Ashley, Nov. 30)

Some students were able to expand on their ideas and explain details about how to deal with problems. In October, Jessica wrote clearly about how she would deal with people bothering her. She shared her ideas and modeled appropriate behavior throughout the unit and was a positive influence on her peers. Brittney explained how she would deal with not getting along with someone and included a number of ideas.

When another kid bothers me on the playground I say could you please stop it.

When my brothers bother me I say could you stop it. When my friends bug me I say if you’re my friend please don’t bug me. When someone comes over to me and say I’m stupid I say if you don’t know me please don’t call me names. When my friends yell at me I say I don’t like that so please don’t yell at me. It’s not nice. When someone tries to hurt me I look them in the eye and say that’s not nice to hurt me.

(Jessica, Oct. 12)

When you get mad at someone you can go and cool off before you pick a solution. When you cool off you can go to that person and talk it out, make a deal or apologize or ignore. You just don’t go and fight again that will make it worse. If that does not work, go and tell an adult if it is a big problem. (Brittney, Nov. 30)

Although perhaps not as mature in their language development as the previous girls, three boys, Tom, Alan and Mel were able to explain a number of ways they might deal with a problem.

If someone is taking the school ball you are playing with it what could you do? You could make a deal or share or take turns or tell him to stop or talk it out or go to
another game or wait and cool off. We have enough people, sorry, maybe next

time. (Mel, Nov. 30)

If someone bugs you, I would talk it out. If you get in a fight cool off. If someone
yells at you ignore it. If someone says go away walk away. (Alan, Nov. 30)

You can share. You can make a promise and keep it. You can walk away. You can
ignore it or stay away from it. (Tom, Nov. 30)

The student journal entries showed that most students had made progress in their
problem-solving skill. Although they may not have been able to apply the strategies into
real-life situations, they were more able to state some alternative solutions, an important
step in the continuum of the problem-solving process.

Problem-solving in Stories: Summary Activity

After reading and responding independently to the problem-solving stories for
more than four weeks, I wanted to bring the group together with a summary activity.
Many students had read the same stories, but no one had read every story. I wanted to
stimulate discussion of the similarities between the stories, especially by focusing on how
the character solved the problem. To do this, I developed some categories of solutions
that I felt the students would be able to use for sorting the stories.

I listed the categories on a worksheet with room to add titles under each category.
The categories were: talk it out, make a deal, make a plan, keep on trying, and get help
from someone else. I provided two spaces for other ideas for categories.

I introduced the worksheet by discussing the similarities between the ways the
characters in different stories solved their problems. I briefly explained what all categories
meant. I used “talk it out” as an example and asked the class to suggest titles that fit under
this category. I listed three of their responses on the chalkboard; then I set them on their
task of going through their worksheets of the stories they had read and of placing the
titles in the appropriate category. I explained that a title might fit in more than one
category and that they would be expected to explain why they had made their decision. I
also discussed how a title might not fit into any of the given categories and that we would
be looking for ideas for new categories.

Within a few minutes, one girl came to me with an idea for a new category. Her
idea was “realize what is more important,” especially because of the book, *Potatoes, Potatoes* (Lobel, 1984). In a class discussion, we modified it to “realized what was
important” and other students agreed that the book fit the category and suggested other
story titles that would fit with this category as well. Everyone then added this category
to his or her sheet. This took us to the end of the allotted time for that day.

We continued this task into the next day’s class so that everyone had a chance to
place the titles of the stories they had read into categories. At the beginning of the class, I
explained the categories again and had students respond with a few examples. The
students that finished early willingly chose books they had not read, read them and added
them to their summary of solutions worksheet.

We discussed and summarized our findings the next day. I asked students to
suggest titles that would fit under each category and listed them on the chalkboard.
 Students could then compare our findings with their own chart and make additions if they
chose. The category “make a plan” had the most titles with 13 recorded. “Keep on
trying” was next with 8 titles. Both “talk it out” and “get help from someone else” had 7
titles recorded. “Make a deal” and “realize what is important” both had 5 recorded titles.
When I was planning the categories, I consciously used some of the same language that was found in the conflict management program *Kelso's Choice*, (O’Neill & Glass, 1994) specifically “talk it out” and “make a deal.” When it came time to introduce the terms from the program in later lessons, it was easy to explain those two strategies by referring to some of the stories the students had read.

Sometimes I asked the students to explain why they thought a title belonged in a certain category and often others agreed. Sometimes the discussion about where to put a title involved some debate. Not every student had read every book, which meant sometimes only a portion of the students was involved in deciding where a story should fit. This was not a problem though and could be seen as a benefit because it sparked an interest in the books discussed. Afterwards, some students read the books the others had been talking about.

The summary activity reinforced the students’ understanding of the stories they had read. They were able to make connections and compare the solutions used by the different characters in the various stories. The students could also make connections between the solutions the story characters used and strategies they could use in their own problems. It allowed them to have experience with a wide range of problems and solutions. Since the students had the experience of reading and responding to a large number of stories, it seemed to consolidate their learning. Although they had completed their work with the “problem-solving in stories” worksheets at the end of November, they were all able to apply what they learned about problems and solutions in stories when they wrote their own “problem-solving” story in January.
Analysis of Group Responses to the Problem Cards

I examined the small group responses to the problem cards from the lesson: “Problem cards” completed at the end of November and compared them to responses from the second session on problem cards completed in the middle of December. Between the two sessions, the students were introduced to the strategies included in the conflict resolution program Kelso’s Choice (O’Neill & Glass, 1994) as well as reading and responding to a number of children’s literature selections dealing with problem-solving.

In both sessions, the students were able to generate a variety of solutions to the provided problems. Every group response included at least four statements of possible solutions to the problem. Many of the groups had similar solutions although they used slightly different wording. Within each group’s responses there were some statements that explained essentially the same ideas. This was good because the students could see that there wasn’t one exact phrase that should be used all the time. For example, Group One’s November responses to “You’re walking towards the playground and an older kid starts teasing you and calling you names” included:

• Say, ‘Stop it’
• Say, ‘Please stop’
• Say, ‘I don’t like that, please stop’
• Turn around and say, ‘Stop that,’ in a firm voice.

For this analysis I wanted to compare the number of strategies the groups used rather than the number of statements. I grouped the response statements by categories to allow for comparison between groups and between sessions. The five categories were: “talking,” “go away,” “ignore it,” “make a deal” and “tell an adult.” For example, Group
Two responded to a problem card with six statements, but they all referred to “talking,” which meant they only used one strategy. Group Five responded to the same problem card with six statements, but they referred to three different strategies: “talking,” “go away” and “tell an adult.”

The student groups showed improvement and were able to record more strategies as possible solutions to the given problems from the first to the second session. In November, the groups averaged 3 strategies for each problem. In December, the average increased to 3.75 strategies for each problem. Some groups showed greater improvement than others did. Group Two improved a large amount, recording one and three strategies on the two problem cards they chose in November but recording five strategies with each of their December cards. Two groups didn’t record more strategies in the second session but the difference was very slight. Group Three recorded one less strategy in December but did not include “tell an adult” as one of their strategies. This was significant because before the instructional unit, most of the group members relied heavily on adult intervention to help solve their problems.

There were many responses that fit into the “talking” category. These included responses that had the words “say” in them as well as responses similar to “tell them to stop” or “tell them how you feel.” “Talking” as a solution was used frequently in both the November and December sessions. Every group responded with at least two “talking” solutions to each problem they worked on. There were many instances of more than three “talking” solutions recorded, especially in November with 10 out of 12 group responses (83%) including more than three “talking” solutions. In December 8 out of 12 responses (67%) included more than three “talking” solutions.
The category “go away” included responses such as “take the ball and go somewhere else with it,” “go play with someone else,” “leave,” and “walk away.” In both sessions, most groups included at least one of these as a possible solution to the given problem, with a slight increase in responses in the second session. In November, 8 of the 12 responses (71%) mentioned a “go away” solution and in December, 10 of the 12 responses (83%) included “go away.”

The statements in the category “ignore it” was usually stated as exactly that. The students significantly increased their use of “ignore it” as a possible strategy from the first to the second session. In November, “ignore it” was mentioned only 5 times (42%) and in December it was included in 9 out of 12 (75%) responses.

The students showed a large increase in their reporting of “make a deal” between the first and the second sessions. In November, there were only 2 instances (17%) that were placed into the “make a deal” category. The statements had to do with sharing or taking turns. In December, 7 out of 12 (58%) responses included “make a deal.” Most of the December responses to this category were simply stated, “make a deal.” Two groups explained their ideas of what constituted a deal. These were: “make a deal if you are tagged one more time and you say you're not tagged you’re out” and “make a deal, tell them to play with you at lunch or another time.”

The students showed a large decrease in their reporting of “tell an adult” between the November and December sessions. In the first session, 10 out of 12 responses (83%) included “tell an adult” while in the second session, only half of the responses included that as a possible solution.
The results show that the student groups increased their repertoire of problem-solving strategies from the first to the second sessions. The group as a whole was able to think of more ways to solve problems.

It was not surprising that the students saw “talking” as way of solving most problems. Throughout their school career, students are instructed to “use their words.” By the time they reach Grade 3, most students have had a successful experience with “talking” solutions. It is also one of the strategies I emphasize in my classroom interactions. I often say to a child that comes to me with a problem, “Have you talked to the other person?” Although the students continue to consider “talking” statements as important, the problem card responses for December show that the students considered other strategies as well. “Talking” was seen as not the only way of solving problems but one of a number of ways that might work.

It is understandable that the students would frequently record “go away” as a possible solution for the given problems because it is one of the simpler solutions, since it can be done by an individual without interaction with others. The high use of a “go away” solution by the class suggests that the students are able to make environmental changes to help solve a problem. By going away, the problem can be avoided or no longer exists. In a sense, “going away” is a more active version of “ignore it.”

The considerable increase in the student reporting of “ignore it” was likely due to a number of factors. I think the students saw “ignore it” as a solution that an older person would use and that choosing to ignore something was a statement of maturity. I think the students’ increased awareness of the word itself also influenced their use. They now had the language to explain an effective problem-solving strategy.
The use of "make a deal" increased considerably, although it was only used in less than 60% of the responses in the second session. The two groups that added details to their responses in December were encouraged to elaborate as I wandered from group to group during the lesson. Probably the other groups would have been able to do the same, but it is unknown at this time. It is not clear whether the students have a good understanding of what it means to "make a deal." It is likely that the students need more practise for it to become more than words and part of their everyday life. Like "ignore it," I think the students increased their use of the term "make a deal" because they now had the terminology to explain the strategy.

The large decrease (33%) in recording "tell an adult" as a possible solution to a problem is promising. It shows that the students are becoming less reliant on adults and more willing to try to solve problems without adult help. "Tell an adult" became one of many choices, rather than one that came to mind immediately.

Two groups included what I would categorize as "rules" in their recording of possible solutions. Examples of rules were: "don't get angry," "don't hurt them." Group One included rules for every problem card it encountered and was likely influenced by one of its members who saw problem-solving as following "don't" rules. This individual showed growth throughout the unit in being able to figure out "how-to" act rather than relying on "how-not-to" behave.

In preparing for the November session, I included a few aggressive solutions, for the sake of discussion. We used the evaluating questions to decide if the solutions were reasonable. I stated that negative solutions were okay to record, and that the evaluation happens after you have thought of a variety of possibilities. In the November session, 5
of the 12 problem card responses included negative or aggressive solutions, while no negative or aggressive responses were recorded in December. This implies that the groups were “screening” their ideas to include only ones they knew were acceptable. They were evaluating the solutions before they wrote them down.

**Analysis of Student Writing - Problem-solving in Stories**

Every student wrote a story based on the questions presented on the *Problem-Solving in Stories: Planning Sheet*. I examined and categorized 23 samples (see Appendix J).

Some themes emerged on examination of the students’ writing. All of the children’s writing samples except for one were about realistic or true situations. Four children wrote true stories, based on their own personal experience. Fourteen students wrote about imaginary but realistic situations involving children as the main characters. Four others had animals as their main characters but were about otherwise realistic situations involving animals with human characteristics. One student wrote a story based on a fantasy novel she had listened to, although she added her own ending.

There were some common themes of the stories. Sixteen stories dealt with interpersonal and/or intrapersonal conflicts. Of these, 14 were about conflicts between characters and four involved a character dealing with a conflict within him or her. Two stories included both interpersonal and intrapersonal conflicts.

Of the stories dealing with interpersonal conflicts, four were about bullies, and two others were based on a disagreement between family members. Three stories had stealing incidents and the other five dealt with various other interpersonal conflicts. Two of the intrapersonal conflict stories were about the main character working to improve
himself, and two others were about the character making a moral judgment and deciding what was right and wrong. Seven children wrote about a lost pet or clothing item. The problem in two stories was that the main character was afraid.

All stories had a problem and explained some sort of solution to the problem. I categorized the solutions the students used in their stories, using the same categories that were used for the literature selections. Some students wrote about more than one solution and their stories were placed in all appropriate categories. The categories were: talk it out, keep on trying, get help from someone else, realize what is important, make a plan and make a deal. All stories were sorted using these categories.

Ten students had their characters “talk it out” to arrive at a solution to their problem. Ten students also had their characters “keep on trying.” Eight of these children wrote about at least three different things that the main character did to try to solve the problem. The other two stories had main characters that persisted with the same thing again and again in order to finally solve the problem.

Seven students wrote about their main character (a child) getting help from someone else. In all but one instance, the “someone else” was a parent of the main character. In the other story, a teacher was asked to help, but the child solved the problem himself. In two stories, the parent offered advice to follow for next time. In two other stories, the parent offered an idea, which the character tried and which was not successful. In those two stories, the main characters solved the problem themselves. In another two stories, based on real-life experiences, the parent solved the problem.
In three stories, the students' main character realized what was important in order to solve the problem. The main character “made a plan” in three other stories. There was one story that fit into the category “make a deal.”

Everyone was able to write a story about a “solvable” problem. The students wrote about problems that were imagined or real, but limited themselves to problems that could be solved by individuals. This shows that they were able to distinguish between problems that they could solve and complex problems.

A willingness on the part of the students to solve problems by themselves was evident. The main character (a child) solved the problem by himself/herself in all the stories except three. Two were true stories written from personal experience and in the other one, the parent suggested a strategy for the child to use next time.

I was encouraged to note that the students were able to transfer their learning and apply problem-solving strategies to their stories. All stories included at least one problem-solving strategy that had been taught or discussed in class. The stories also indicated that most of students were willing to consider how to solve personal problems since a majority of the stories (16 of 23) dealt with an interpersonal or intrapersonal conflict as the main problem. I was pleased to see that many of the stories showed the students’ willingness to try different problem-solving strategies. These stories used the often effective problem-solving strategy of trying something else if one thing does not work.

Analysis of Student Self-assessment Questionnaires

The student self-assessment questionnaires attempted to measure the students’ perceptions of their problem-solving abilities. I expected the questionnaires to provide me
with more information than they actually did. Seven of the 17 items provided interesting information. These were items where yes or no was clearly the preferred answer. I looked at the number of students who had recorded a positive change toward the preferred answer as well as the number of students who rated themselves at the preferred level in the second self-assessment.

The questionnaire item "I am good at solving my own problems" provided the most encouraging results. The largest number of student made a positive change from the first to the second sessions on this statement. Ten students (43%) made a positive change and only two moved toward the negative, with 11 students (48%) staying the same between the two tests. In the post-test, 20 students agreed with the statement, two responded with sometimes and only one student registered a no response. This showed me that the students’ attitude towards problem-solving was good or improving. I question the reliability of the data for the one student who registered a no response, since he recorded a yes response on the pretest and was showing improvement in being able to solve his own problems.

Another item was closely related to the previous one and also had a large number of respondents change positively. Eight students (35%) made a positive change on the statement, “I like to try to figure out things on my own.” Almost all of the students answered yes or sometimes on the posttest.

The results from the item “When I feel upset, I try to figure out what is bothering me” also showed that the students had improved in this area. Ten students (43%) made a positive change. Twenty-one of the students responded with a yes or sometimes on the post-test. It was interesting that the students showed improvement on this item, because
the idea of figuring out what was wrong when a person feels upset was not discussed or directly taught in the unit, but was related to the first step in problem-solving, "What is the problem?" 

There were some items that indicated strong agreement by most of the class. The items, "When things don’t go the way I want them to I stay calm" and "When another kid bothers me, I tell him or her to stop" had high yes ratings (19 and 18 respectively). This was encouraging to me, since they are two behaviors that I emphasized throughout the unit.

The responses to "I get upset if I don’t get my way" and "I get upset when things don’t go the way I want them" provided similar results, with no being the preferred response. Eighteen students recorded a no response on the former, with 15 no responses on the latter. When examined along with the responses to the item "When things don’t go the way I want them to I stay calm" and with my observations of classroom behavior, I can state that most of the class is able to stay calm when confronted with a problem.

I think the main difficulties of the questionnaire were that the statements were not specific enough and there were not enough of them to give more validity to the questionnaire. In my effort to make the questionnaire "jargon-free," I lost the specificity that was needed to make the questionnaire valuable. I deliberately wanted the questionnaire to be short so it was easy to administer, but then didn’t have enough information from which to draw conclusions. I might also have obtained more useable information by expanding the simple three-point Likert scale to five points.

Another problem with the statements was that in some instances, the preferred statement was sometimes rather than yes. Sometimes was a preferred statement on some
items about problem-solving strategies, because I hoped the students would understand that there was more than one way to deal with a problem situation. This made the results difficult to score.

Another concern was the honesty of the students. Was there a change in a student’s response because of an actual skill level change or was the change due to the student knowing what the teacher expected? This is a concern with any self-assessment but might have been reduced if there were a greater number of test items and the statements were more specific. My feeling is that the self-assessment questionnaire was somewhat useful as an indicator of students’ problem-solving behavior but needs to be expanded to be effective.

Rating Individual Student Progress

I used the *B. C. Performance Standards: Social Responsibility* rating scale: *Solving Problems in Peaceful Ways* for Grades K to 3 to help me record and rate student problem-solving behavior. I decided to rate the students at the beginning of the instructional unit and to rate them again at the end. I was interested to find out two things. Would the students improve in their ability to solve their own problems? Would the performance rating scale: *Solving Problems in Peaceful Ways* be a useful tool to help me assess my students’ problem-solving ability?

Early in the unit I decided which category each student in the class seemed to fit. My rating was based on general impressions and some specific situations that I could remember, but I did not have any recorded observations to review. I found that even though I was motivated to look for instances of problem-solving behavior, I felt that I did not have much information other than my intuitions and feelings on which to base my
opinion. Nevertheless I found it quite easy to rate the students who were in the *Not yet within expectations* category because I could recollect their reactions to many conflict situations. These were the students who required a large proportion of the teacher’s time and energy. The students who I decided were in the *Exceeds expectations* category were the also reasonably easy to rate, although I did not have as many observations to draw on. I found it was hard to observe problem-solving “going well” since it often was not brought to a teacher’s attention. I could easily place three students in this category and I struggled deciding about four more. I worried that I might place a “good kid” in the category not because he or she had strong problem-solving skills but because the student was very good at avoiding conflict but had not developed any ways to deal with problems. The rest of the students that fell between the extremes, I considered to have met the expectations. I placed them in the *Meets expectations (minimal level)* or *Fully meets expectations* categories depending on whether they were closer to *Not yet within expectations* or *Exceeds expectations*.

Although I was not totally confident that I had rated each and every student accurately, using the performance standard helped me understand a number of things. I realized that I would need to become more familiar with the scale in order to have a better understanding of what to look for to improve the accuracy of the rating. I also recognized that it would be important to provide opportunities for social interaction, not only for practise but also for observation. I could also see that the scale would be more applicable if there was an instructional emphasis on the problem-solving process.

I rated the students again a month after the last formal instruction about the problem-solving process. This time it was easier, since problem-solving had been
emphasized and there were more opportunities for observation. I rated the students the second time without looking at my first rating. For some students, it was relatively easy to look at the rating scale and recognize that they met the criteria in one category. Others were more difficult. For these students, I used a copy of the rating scale and highlighted the behaviors I had observed. For example, one student exhibited four behaviors that I would categorize as Not yet within expectations and four in the Meets expectations (minimal level). Although I placed his name in the Not yet within expectations category, I could see that he had made progress towards meeting the expectations. In this way, progress could be recorded even though the overall rating hadn’t changed.

I realized that it was important to look at more than one behavior in order to rate a student accurately. I placed a student in the Meets expectations category who deliberately misrepresented a situation in order to avoid consequences (a Not yet within expectations observation) after I looked thoroughly at the other exemplars and realized that the rest of his behaviors fell into the Meets expectations category. If I had completed the rating with less diligence, I might have made placed him in the Not yet within expectations category, which would have been a less accurate rating.

When I compared the first and the second ratings, I noticed that I rated many of the students in the same category. This did not necessarily mean that the students didn’t improve in their ability to solve problems peacefully, because it might be that their improvement wasn’t enough to show a change in the category. I would say that every student improved in his or her ability to solve problems peacefully, especially in the area of trying to solve problems independently of adult support. One student showed minimal improvement, 17 showed good improvement and 6 showed very good improvement.
Those six students improved enough to have their rating move up a category. In the final rating, I placed eight students in *Exceeds expectations*, six students in *Fully meets expectations*, eight students in *Meets expectations (minimal level)*, and only one in the *Not yet within expectations* category. In my opinion, one student showed excellent growth in being able to solve problems peacefully, with his rating moving from *Not yet within expectations* to *Fully meets expectations*.

**Process of Developing the Lessons**

When I first started writing out my lessons I thought of setting them up as lesson plans for others to follow. I became very wary about giving so much detail that it would become part of the “teacher-proof curricula” (McCutcheon, 1988). I realized that one of the strengths of my lessons was that I had constructed them myself from my background research and experience. Although I adapted some activities and lessons that someone else had developed, I made them my own. Sometimes I was not consciously aware of the influence of the lessons and instructional strategies that I had read about; they became part of my background experience. It became a cycle: as I read more, my background increased; as I began developing lessons and reflecting on them, my experience increased.

Except for the problem-solving steps themselves, I planned and developed every lesson on my own. I started with a framework of objectives and developed lessons from the lived experiences of my students and myself. I knew where I wanted to go and the basic way I wanted to get there, but I did not have every step planned out in advance. Sometimes I would change my idea of how I wanted to present the lesson just minutes before I taught it.
Although many of the lessons were self-contained, they were not designed to "stand alone." Each lesson built on previous learnings with some lessons making direct reference to the previous lessons. For example, it was easy for me to explain what kind of a problem I wanted the class to write about when I could refer to the books the students had read or the lesson on "big" versus "solvable" problems. Because of the nature of the lessons, the order of the lessons was important. The problem-solving steps acted as a scaffolding from which every lesson was built. The lessons were made more relevant to the students because they were constructed from the lived experiences of the students. I did not fit the class to the lesson; I fit the lesson to the class.

The process of designing and writing about the lessons was interesting. Before every lesson I had a plan of where I wanted to go, but the lesson developed as I was teaching it. I changed my approach or asked a question a different way depending on the response I got from the class. Sometimes when I attempted to write it down, I found it a struggle to try to capture the essence of the lesson and the intuitions that played a prominent role. I came to truly understand that teaching is an art. It was simple for me to teach but difficult to explain.

*Use of My Problem-Solving worksheet*

The *My Problem-Solving* worksheet worked well as a behavioral management tool as well as giving the students more experience with the problem-solving process. I found that the worksheet was easy for the students to understand because of its links to the problem-solving steps. Because the students were taught different problem-solving strategies that they could use, the students had a knowledge base from which to draw on.
The worksheet was another facet of the instruction and helped the student connect the problem-solving process to his or her real-life (see Appendix B).

The worksheet promoted student self-reflection and worked as a proactive strategy to promote student thinking and self-monitoring. Sometimes it was combined with “time-out” which provided the student with a task to complete while he or she was calming down. I found that the worksheet gave a clear message to the student that the misbehavior was a concern and that I wanted to discuss the incident later.

With the use of the sheet, the student could feel assured that he or she would have a chance to explain the incident and would have the opportunity to develop some plans or goals for future incidents. Because of the student input and choice, there was more commitment to improvement. The worksheet acted like a foundation for the problem-solving approach.

I found it was best to use the worksheet immediately following a misbehavior, although this was not always possible. It also depended on the severity of the problem; a more severe problem would require more immediate attention. Sometimes I would ask the student to work on it later in the day or after school. I found it was best for the student to complete the worksheet on the same day as the inappropriate behavior.

A benefit of using this worksheet over others that I had used previously was that it was explained in relation to another lesson at a non-emotional time. I used to try to explain how to complete a behavior report immediately after a student had made a poor choice. I use the word “try” because often the student was upset and not listening, so very little of what I said was absorbed. By explaining the problem-solving sheet before it
needs to be used, the teacher can improve the chance that the student will be able to complete it successfully.

I completed the “consequences” section of the worksheet in discussion with the student. The consequences varied depending on the severity of the misbehavior or the frequency with which it occurred. Sometimes the only consequence was filling out the *My Problem-Solving* worksheet and sharing it with me, while in other instances the sheet might be shared with the principal or the parent. Sometimes a “natural” consequence resulted, for example, missing some pleasant activity or staying after school in order to complete the sheet. Apologizing in verbal or written form to the other person involved was a common consequence. I retained the worksheets since they formed a record of misbehaviors, student goals and consequences. I also recorded on a class list the dates of the incidents so I could recognize possible patterns if they occurred.

**Ongoing considerations**

Before, after and throughout the unit, I made an effort to share my thinking with the students. For example, if I ran into difficulties setting up a piece of audio-visual equipment like the video machine or the overhead projector, I would say things like, “I wonder why this isn’t working? Oh I see, I forgot to plug it in.” Often in the morning, when I was explaining the day I would share my thinking for how the day was set up. If I felt I needed to make changes, I let the students know my reasons.

“Thinking out loud” is a strategy a teacher can use to help the students understand the thought processes that are involved in solving a problem. Although it is hard to measure if my “thinking out-loud” had an impact on the problem-solving skill of the
students, it did allow for greater communication and helped build a better understanding between the students and me.

The chart of the problem-solving steps was prominently displayed at the front of the classroom. I referred to it many times through the course of the unit, often as part of a formal lesson, but also to take advantage of a “teachable moment.”

In order to provide opportunities to practise the problem-solving process, I made sure that the students had time for social interaction. I used cooperative learning strategies and partner activities in various subjects and built some time for unstructured and group activities into the schedule.

For one day each week, students worked in a group of five or six students at what I referred to as “learning centers.” Every group worked at a center for 30 minutes, then rotated until all four centers were completed. Most of the learning center activities involved sharing of materials and many were partner activities or games. Also, for 45 minutes a week, students could be involved in a variety of play activities in what I referred to as “choice centers.” Almost all of the play activities involved social interaction or sharing.

There were also opportunities for problem-solving and communication in P. E. class in a unit on inventive games. I gave the students a task to make up a game given a certain amount of equipment. They needed to choose a group and space to work and make up a game. All students improved their understanding of the “give and take” that is often necessary in a group activity.

The students generally worked cooperatively in the group activities. They seemed to be better able to share materials and work together than in classes I had taught.
previously. I think that the lessons about the problem-solving process provided the students with skills and strategies to allow them get along better.
Summary and Implications

Summary

The blend of both interactive and independent activities was effective in helping to strengthen the students' ability to solve their own problems. The students interacted in whole group discussions and small group thinking sessions. They also cooperated to create and present role-plays. The independent reading activities reinforced the problem-solving process, while the independent writing assignment invited the students to apply many of the problem-solving steps.

Reading the “problem-solving” children’s literature allowed the students to have experience with a wide range of problems and solutions. Comparing the solutions used by the characters in the stories helped the students make connections between the stories and also encouraged them to make connections with their own life.

Students increased their repertoire of problem-solving strategies. Strategies involving talking continued to be important. The students increased their recording of “make a deal” and “ignore it” as possible strategies and decreased their recording of “tell an adult.” The student journal entries showed that most students were more able to state some alternative solutions. The students were also able to apply the problem-solving strategies to the stories they wrote. Many of the stories showed the students’ willingness to try different problem-solving strategies.

Students improved their attitude towards problem-solving and showed an increased belief in their ability to solve their own problems. Most students agreed with the statement, “I am good at solving my own problems.” A willingness on the part of the students to solve problems by themselves was evident from the students’ story writing.
Students were able to distinguish between problems that they could solve and complex problems, which was evident in their story writing and role-plays.

There was better interaction, communication and cooperation between students. I am convinced that the lessons about the problem-solving process provided the students with skills and strategies to allow them get along better. As students shared their problem-solving ideas it allowed other students to hear ideas from a peer’s voice, which I felt was more authentic and beneficial. Students were also able to support and remind each other in the problem-solving process.

Classroom management was smoother, since everyone shared a common language and process for dealing with conflicts or other problems. The problem-solving process acts as a framework that allows both the students and the teacher to make connections between situations. There can be greater consistency between a childcare worker and teacher when the problem-solving process is used as a model for dealing with students.

Classroom management was also enhanced with the use of the worksheet, *My Problem-Solving*, by linking the problem-solving process and behavioral management. The worksheet helped the student connect the problem-solving process to his or her real-life. Its effectiveness was improved because it was explained at a non-emotional time as part of the instructional unit. There was less “tattling” since students knew that they were expected to try to solve a problem themselves first.

Using the rating scale for *Solving Problems in Peaceful Ways* from the *B. C. Performance Standards: Social Responsibility (draft)* (Ministry of Education, 2000) is an effective and efficient way to record and rate observations of student behavior when there is an instructional emphasis on the problem-solving process. In order to make the use of
the performance standards more effective; I would teach the students about them in a manner that encourages self-evaluation. I would also develop a checklist or other device to record observations of student problem-solving behavior.

The self-assessment questionnaire was somewhat useful as an indicator of students' problem-solving behavior but needs to be expanded to be more effective

Implications

I find it useful to think about "the whole being greater than the sum of its parts" when I explain the strength of this unit. It is my belief that although each lesson was effective by itself, it was the interconnectedness of the lessons that was critical to the unit’s success. Each lesson was built on previous learnings and was not designed to "stand alone." The problem-solving steps acted as a scaffold from which every lesson was built. Just as a building is more than pieces of material, this problem-solving unit was more than the lessons themselves. It was about the interconnectedness and the classroom climate that developed when things worked well together.

The interconnectedness of the unit is important to keep in mind for teachers who want to use these ideas in their own classrooms. Each lesson except the first few is dependent on the lessons and activities that have been completed previously. Although it seems as if it could be used independently, it is especially important to link the worksheet, My Problem-Solving with the instructional unit for it to be most effective.

I believe that teaching problem-solving steps can reinforce the use of a problem-solving approach by teachers. It is my experience that teaching something helps me to know it better.
I am convinced that role-plays, both teacher-directed and student-led, are effective in reinforcing problem-solving strategies.

"Thinking out loud" is a strategy a teacher can use to help the students understand the thought processes that are involved in solving a problem and can allow for greater communication and understanding between the students and teacher.

The next time I implement a problem-solving unit such as this one, I will endeavor to involve parents more. I would expect that the students would show even more improvement if their parents used a similar problem-solving approach at home to the one that was used at school.

I set out to see if I could discover a way to encourage my students to become better problem-solvers, but my project has become more than that. Through the process of completing it I have consolidated my philosophy of teaching. It caused me to reflect about what is important and why I teach the way I do. It has been an empowering experience. My advice to others is to find something that you believe is important to teach, make it your own and teach it with passion.
References


Appendix A

Children’s “Problem-Solving” Literature


Fitch, S. (1993). *There were monkeys in my kitchen*. Toronto: Doubleday.


Appendix B

My Problem-Solving

My Problem - Solving

1. What was the problem?

________________________________________________________________________
________________________________________________________________________

2. What did I do?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. What are some other solutions? (What could I have done?)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. Choose a solution to use in the future.

________________________________________________________________________
________________________________________________________________________

5. Consequences:
Appendix C

Student Problem-Solving Self-Evaluation Questionnaire

We would like to know how you feel about problem-solving. This is not a test. There are no right or wrong answers.

For each question, please circle the face (happy, neither or sad) that best describes your feelings. If you are not sure how you feel, circle the question mark. Put your name on the survey. If you have any questions, please raise your hand.

Please circle your answer for each question.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When something is hard to figure out, I keep trying.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>2. I like to try to figure things out on my own.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>3. I get upset when things don’t go the way I want them to.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>4. When another kid bothers me, I try to ignore him or her.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>5. It’s easy for me to choose what to do in my free time.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>6. When I can’t figure something out, I ask for help.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>7. I am good at solving my own problems.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>8. When another kid bothers me, I bother him or her back.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>9. When something is hard to figure out, I give up.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
<tr>
<td>10. When things don’t go the way I want them to, I stay calm.</td>
<td>😊</td>
<td>😊</td>
<td>😞</td>
<td>?</td>
</tr>
</tbody>
</table>

(Survey continues)
(Survey continued)

11. When I feel upset, I try to figure out what is bothering me.  😊😊😊😊 ?

12. When another kid bothers me, I walk away.  😊😊😊😊 ?

13. I like someone to help me with problems.  😊😊😊😊 ?

14. When I get upset, I wait and cool off.  😊😊😊😊 ?

15. When another kid bothers me, I tell him or her to stop.  😊😊😊😊 ?

16. When something doesn’t go as I planned, I try something else.  😊😊😊😊 ?

17. I get upset if I don’t get my way.  😊😊😊😊 ?
Appendix D

Lesson / Activity Schedule

Oct. 12  Journal Entry #1
Oct. 14  Student Self-Assessment Questionnaire #1
Oct. 25  Problem-Solving Steps
Oct. 26  Problem-Solving Steps review
Oct. 27  Introduction of “My Problem-Solving” Sheet
Oct. 28  Problem-Solving in Stories - introduction
Oct. 28 to Problem-Solving in Stories
Nov. 29  - at least 3 half hour sessions per week, total of 15 sessions
Nov. 8   “Big” vs. “Solvable” Problems
Nov. 15  Practising the problem-solving steps
Nov. 17  Problem Cards #1
Nov. 18  Problem Cards - sharing
Nov. 22  Linking
Nov. 30  Journal entry #2
Nov. 30  Problem-Solving in Stories - Summary of Solutions
Dec.2   Problem-Solving in Stories - Summary of Solutions
Dec.6   Problem-Solving in Stories - Summary of Solutions
Dec. 7  Point of View
Dec. 14  Problem Cards - #2
Dec. 17  Student Self-Assessment Questionnaire #2
Jan 10  Problem-Solving Role Plays
Jan 10 - 14 Student Writing - Problem-Solving in Stories
Appendix E

Steps in Problem-Solving

Steps in Problem-solving

Step 1: What is the problem?

Step 2: What are some solutions?

Step 3: For each solution ask:
   • Is it safe?
   • How might people feel?
   • Is it fair?
   • Will it work?

Step 4: Choose a solution and use it.

Step 5: Is it working? If not, what can I do now?
Appendix F

Steps in Problem-Solving Activity Sheet

Steps in Problem-solving

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

(continued on next page)
INSTRUCTIONS

Please cut the Problem-Solving Steps along the dotted lines and paste them in order on the first page.

What are some solutions?

What is the problem?

Is it working? If not, what can I do now?

For each solution ask:
- Is it safe?
- How might people feel?
- Is it fair?
- Will it work?

Choose a solution and use it.
Appendix G

Problem-Solving in Stories

Problem-Solving in Stories

Title: ____________________________________________
Main character(s): ________________________________

1. What was the problem in the story?
   The problem was ________________________________
   ________________________________

2. Tell about how the character or characters felt and why.
   _________________ felt _________________________
   because ________________________________

3. Tell how the character(s) tried to solve the problem.
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________

(continued on next page)
4. Tell how the story ended.

How did the characters feel? ________________
Was the problem solved? ________________
Appendix H

Problem Cards

1. You’re playing by yourself with the class ball and another kid keeps grabbing it from you.

2. You’re walking towards the playground and an older kid starts teasing you and calling you names.

3. You’re trying to read and the kid beside you keeps talking to you.

4. You’re playing tag and kids keep saying they weren’t tagged when you think they were.

5. Your friend promises to play with you at recess, and then goes off with other kids.

6. One kid in your group bosses everyone else and decides who can play the game and who can’t.
Appendix I

Problem-Solving in Stories – Planning Sheet

Problem-Solving in Stories - Planning Sheet

Title: __________________________
Main character(s): _______________________

1. What is going to be the problem in the story?
   _______________________________________
   _______________________________________

2. How will the character or characters feel about the problem?
   _______________________________________

3. How will the character(s) try to solve the problem?
   _______________________________________
   _______________________________________
   _______________________________________

4. How will the story end?
   _______________________________________
   _______________________________________
   _______________________________________

   How will the characters feel? ______________
   Will the problem be solved? _______________
Appendix J

Student Problem-Solving Stories

The hunter and the deer

It was the first day of fall and Amy, Lisa and their pet deer were outside playing tag and hide and go seek in the woods. They live in the woods, so they have good hiding places. Suddenly their pet deer ran off. Amy and Lisa ran after her. Then they say a hunter. He was going to shoot their deer! They were going to tell their mom, but they wanted to stop him themselves. They felt worried because they did not know what to do and they thought their pet deer would die. They did not know what to do. Then they thought of an idea. They tried to call their deer, but that did not work. Then they tried scaring the hunter away, but that did not work. Then they did not know what to do. They thought and thought. Then they had an idea. They went to talk to the hunter. They said, “Why are you trying to kill our pet?” And he said, “I did not know that was your pet, so now that I know that is your pet I will not kill it.” The hunter went away and everyone lived happily ever after.

by Ashley

The fight at school

There was a girl. She is a nice girl. Her name is Mary and there is a bully. Her name is Molly. When Mary went to school, Molly met her at the playground and then she started to call Mary names and bully her.

Mary said, “I feel sad when you bully me.”
“So,” said Molly.
“Well, I don’t like that. Stop it, Molly,” said Mary.
“O.K., but I just want to be your friend,” said Molly.
“Then tell me and don’t bully me,” said Mary.
“But do you want to play with me?” said Molly.
“Yes, I do,” said Mary. They feel happy.

by Mary

The Lost Lizard

Ed lost his pet lizard and can’t find him. Then he felt very lonely. Then Ed tried looking and looking and looking for his lizard. First he looked under the front porch. Then he looked in some weeds. Then he looked in a swamp. Then he looked in some trees. And still didn’t find him. The he went into the house and asked his mother where he could find his lizard. Then she said, “Think about the places a lizard would go.” Ed though for a minute. Then he looked in the meadow. And he found his lizard eating flies. Then he was very, very happy and took his lizard into the house and put his lizard back into its cage.

by Mitch

Twins

There were two brothers. They always got into trouble. One day they got so mad at each other. They wanted to prove who was best. So they went to school and they saw
a little kid so they walked up to him. They said to each other, how about we pick on this little kid? They teased him and teased him. He got so scared he ran right to the principal. The principal sent the boys to the office. One of the boys got punched by his other brother while waiting for the principal. He said, “What’s the point?” The other brother said, “Yeah.”

By Ross (He explained to me what ending meant, he said the twins decided not to pick on kids because it wasn’t worth it)

The good monkey

Once upon a time in a far, far away place, there lived a monkey named Funk. The monkey king makes Funk take jewelry from people. Funk did not like to take jewelry from people. The king felt happy because Funk brought him jewels. Funk felt worried. One night when Funk was sleeping, he had a dream. And in his dream he realized that he should take back the stuff if the king would let him. Funk tried to convince the king to bring the stuff back. But the king said, “No.”

Funk knew it was wrong to steal. One night when the king was sleeping he grabbed the jewelry and brought it back to the people.

by Kayley

The twin brother frogs

Once upon a time there were twin brother frogs who didn’t get along. The problem was the frogs kept on fighting about whose sport was better even though both sports were very nice.

So the next morning, the frogs ate breakfast, even though it was still a contest to see who could eat the fastest. Then it was time to go to their sports.

“Hey how ‘bout we make a deal. You go to soccer for me and I’ll go to hockey for you. The coaches won’t notice since we’re twins.”

“Deal.”

And then they got dressed in each other’s equipment. Then they were off seeing whose sport was better. The coaches were nice to the boys. They had fun doing each other’s sports.

They go home and one said, “Soccer’s fun.”

“I know, same with hockey. It’s fun too.”

“I know, I’m sorry for saying hockey is better because they really are both the same.”

So the frogs got along now. And now they both played both sports because the coaches changed the time, so the soccer was at 2:00 p.m. and hockey was at 4:00 p.m. And the frogs lived happily ever after.

by Jessica

The lost dog

Once upon a time there was a girl named Amy and she has a dog named Spot. One day Amy was getting ready for school and in ten minutes Amy was ready for school. When she opened the door, Spot ran out of the house. Amy ran after Spot, but Spot was too fast for Amy, so Amy ran home and told her parents.
Amy’s mom said, “We can look when you’re back from school.” “O.K.” Amy said.

So Amy went to school. When she came home, Amy and her parents went to look for Spot. They looked and looked and they called Spot and Spot didn’t come.

So Amy’s dad said, “How about we put up lost dog posters?”

“O.K.” Amy said.

So they made lost dog posters and put them up. So they waited and waited, but no one called. So Amy went to look one more time. So Amy went outside. She went to her backyard and there was Spot, sitting there. Amy ran to Spot and hugged him. Amy brought Spot inside and told her parents. They were happy and Spot was happy to be home too.

by Kristine

The fighting family

Once there was a family that didn’t like each other. One day the family got into a fight about who is the best. They are all mad about who is the best.

Then the first one, Ash said, “We are all the best.”

The second one, Misty said, “He is right.”

The third one, Brock said, “I guess.”

Now they are a happy family because they solved the problem because Ash said, “We are all the best.”

by Alan

The day I was scared of dogs

This is a true story. I was scared of dogs because I thought they would bite my head off. My family decided to get one. I named him Snoopy. The first night I was laying on the chair and my dog came on my lap. I was scared for awhile, then I was never afraid again. This is the best day ever.

by Bob

Mr. Bean runs away

This is a true story. The problem is Mr. Bean runs away. Rascal is sad. Rascal looks for him around the building. He looks everywhere. He comes back and Rascal sees Mr. Bean under the stairs. He brings him inside. Kendyl is happy. She hugs Mr. Bean.

by Mel

Gafunk the dog

Once upon a time on a planet called Octo, there lived a town of dogs. There was a king and a queen and a dog named Gafunk. He worked for the king.

One day the king said, “Gafunk, go to Earth and get me some jewels.”

Gafunk said, “Are you sure it’s right?”

“Yes,” said the king.

So Gafunk went to Earth and took some jewels and gave the jewels to his king. The king felt very happy, but Gafunk felt worried. He tried to convince the king to take back the jewels, but the king said, “Never.”
He tried to convince the queen to convince the king. He tried to get other dogs to convince the king. But nothing worked.

One day, Gafunk was thinking about the jewels. That night, Gafunk and his friends took the jewels and returned them to the people. The people thanked them and let them each keep a jewel.

by Nancy

Bullies

Some bullies were pushing Pat around. He did not like what they did. So he told them he did not like what they were doing and ran off so they could not bug him. And he went home and told his mother. She said next time they do that tell someone you trust.

by Tom

The scared chipmunk

Once there was a chipmunk who lived in a tree, and there was a mouse who lived in a hole. The chipmunk had a neighbour. It was an owl. He was nice. But the owl moved and then the mouse moved in.

Then one night the chipmunk was taking a walk. Then the mouse ran very fast past the chipmunk. The chipmunk got scared and he ran home all the way. He got inside and locked the door. He was so scared, he had to scare him back. He thought what to do. He thought for 5 minutes, then he had an idea. He would do what the mouse did to him. He would run past him. So he tried it, but it did not work.

Then he decided to try and make friends. So he went over to the mouse to talk and they talked for a minute. They decided to be friends.

by Sam

The pumpkin

It was the day before Hallowe’en mischief night and Lisa and Kim were carving their pumpkin, their best ever pumpkin. It had triangle eyes, a trangle nose with a mouth with three teeth. When night fall came they put the pumpkin outside and went to bed.

When they woke up, they checked the pumpkin. It was there but smashed! Lisa and Kim immediately knew who did it, Billy Bronco, the school bully. He was only one year older then them but a lot bigger and meaner. They knew it was him because he hated them most of all grade fours. Kim and Lisa knew they had to stop Billy. They were very mad at what Billy had done. They knew they had to talk to Billy because they weren’t mean enough to smash his pumpkin (if he had one.)

So the next day they talked to Billy and made a pumpkin. When they woke up the next morning their pumpkin wasn’t smashed and they lived happily ever after, at least until next Hallowe’en.

By Penny

Lassy Lost Her Homework

Once upon a time there was a girl. Her name is Lassy. She had a problem in school. She kept losing her homework. When she went to school, she was feeling sad because she lost her homework. She didn’t want her teacher to get mad. so she said, “My baby sister ripped it, My mom thought it was garbage and I left it in the park.”
But her teacher knew she was lying. So Mrs. Thompson made Lassy stay after school.

On the way home, she was thinking who stole her homework. There was this kid in her class. He always got his homework wrong, but in two days he got all of them right. So that night she wrote her name with a special pen on her homework. So when she went to school she would find the thief.

That night, Tommy snuck into Lassy’s room and stole her homework. He snuck out very quietly.

So that morning when she went to school, Tommy didn’t see the pen because it was magic. So when Tommy put his name on it, it would disappear and turn into Lassy’s name. So when he handed it in, Mrs. Thompson said, “So you gave Lassy this problem. You go say sorry, young man.”

So he did and he had to stay after school and do homework for the rest of the month. Lassy’s teacher said she was sorry and gave Lassy a treat for finding the thief.

by Brittney

Late for supper

One day Jord was at her friend, Sarah’s house. She was playing Nintendo and she lost track of time. Jord’s mom was worried. She thought Jord was lost. Jord’s brothers went to go look for Jord. Her mom stayed home in case Jord came home. Jord’s brothers looked at all of Jord’s friend’s house except Sarah’s house. By the time Jord got home it was 7:00, but Jord was supposed to be home at 4:00. And when she got home, Jord’s mom tried to be as calm as she could. “Do you know how to tell time?”

Jord said, “No.”

“What you should do is tell Sarah’s mom what time you have to be home and she will tell you what time to be home. And then you will be home on time.”

by Sarah

The forgotten hockey jersey

Last year I went to a hockey tournament in Creston. We were waiting for Uncle Joe to take us to the hockey tournament. Then the door opened. It was Uncle Joe. So then we were on our way.

When we got there, my dad brought all my hockey stuff out. But my jersey was not there. My dad was worried. We looked everywhere. But my dad’s friend’s daughter was playing. So he lent me her jersey. So I got to play after all.

by David

The Valentine Trouble

Once upon a time there were two kids, a girl named Amy and a boy named Joey. It was one day before Valentine’s Day. Everybody had a Valentine card from Amy but Joey.

The teacher called recess. Everybody rushed out. Amy and Joey always met outside up on the hill. Joey was upset. Amy asked, “What is the matter?”

Joey said, “You forgot a Valentine card for me.”

“I’m sorry,” Amy said, “I didn’t have anymore cards.”
The next day, Joey woke up and opened his curtains and looked outside. There was a big truck. Joey got dressed and ran out the door and to Amy’s house. Knock, knock! Amy got out of bed and opened the door. “Joey, what are you doing?”

Joey said,” There is a big truck at my house.”
“Told me, I rented it. It’s for you.”
“It is?” Joey said.
“Yes.”

Amy got dressed and went to Joey’s house. Amy said,” Open the doors to the truck.”

So Joey jumped up on the bumper and opened the door and looked inside. Amy was smiling. There was a big card inside.

Joey said, “Thank you so much.” And they lived happily ever after.

by Carolyn

My Lost Jersey

I lost my jersey in the school because I took it off and then I left it where I took it off. Then it was time for home and I forgot all about my jersey. When I got home, I had hockey and I opened my hockey bag. Everything was there except my jersey and I called my mom. She wasn’t home. so I called my dad. He wasn’t home. Then I called my mom’s cell phone. She was there. I said, “Mom, can you bring my jersey home from school?” My mom said, “Okay.”

by Matt

The Baseball Game

Once there was a guy named Rick and he didn’t know how to hit a baseball. During the second inning the other team got a two run shot. They were beating them 2-0 and they kept getting home runs. They were leading them 4-0 and they got another two run shot. They finally got a two run shot.

They were still losing 6-2 and the other team got a run 7-2 and finally they hit another 2 run shot. They were still losing 7-4 and the game was almost over.

Rick was practising his hits. The bases were loaded. He was up to bat. And what do you know? He hit a grand slammer. His team went on to win the game 7-8.

Rick’s brother shook his hand and said, “Good game. Your team is really good. Let’s go to a restaurant and have something to eat. Next morning you’re against the best team. Can I go on your team?”

“Okay, yes,” said his brother.

It was getting pretty late so they went to bed. When the morning came the baseball game started. It was tied 6-6 and Rick was up to bat and he hit a home run. They had won the cup. Both brothers won the cup! “Yeah!” they cheered.

By Bill

Hogwart

Far, far away in a special school for wizards and witches, a wizard named Harry Potter was walking through Hogwart’s school and he saw a shadow. He turned his head and nothing was there so he started off again. Then he saw the shadow again. He looked
behind him. He saw one of the wizards. The wizard tried to put a spell on Harry but Harry dodged it. The wizard started chasing him. Harry ran as fast as he could. He dodged another spell, then the wizard disappeared and all was well. Harry met up with his friends. He told his friends. They said it was nothing to worry about. But the next day the wizard appeared and started chasing Harry. Harry ran and dodged the spells. Then the wizard disappeared. Then Harry saw his friends. Then he said to his friends, "Didn’t you see him?"

"Who?" they said.
"That wizard," said Harry.
"No," they said.
"But he was right there."
"Where?" they said.

That night in Harry’s chamber, he couldn’t stop thinking about the wizard and why he was chasing him. Could it be because of his scar on his forehead? Harry wondered if it was. When he woke up and opened the door, there was the wizard. Harry tried to put a spell on the wizard but the wizard dodged it. The wizard put a spell on Harry and Harry fell to the ground.

When he woke up there were his friends. He said, "What happened?"
"We don’t know, Harry," they said.
Harry said, "It was the wizard."
"Are you okay?" they said.
"I’m fine," said Harry. Harry got up.
"Where are you going?" said Harry’s friends.
"I’m going to tell one of the teachers that a wizard is chasing me."

When Harry got to the teacher’s office, Harry told one of the teachers but she didn’t believe him. So Harry went off to find the wizard and ask him why he was chasing him. But Harry could not find him. Finally he found the wizard. Harry asked him why he was chasing him. The wizard said that long ago Harry took away his powers and he could not fly and he could not make potions. Harry felt bad, so Harry gave back his powers.

by Tanya