



UNIVERSITÉ
DE MONCTON
Campus d'Edmundston

Un **accent**
sur le **savoir**
savoir-faire
savoir-être

World Association of Lesson Studies
International Conference 2007

Enhancing Learning Through Visualization: A Class Teaching and Learning Analysis

Renée GUIMOND-PLOURDE Ph.D

Louise GAUDREAU (principal)

Manon LAVOIE (teacher)

Sandy LEVESQUE (teacher)





OUTLINE OF OUR PRESENTATION

1. First part: **Scientific dimension** (Renée Guimond-Plourde)
 - A. Stress in children: A modern worldwide problematic
 - B. Stress management program within the framework of partnership (1988-2007)
 - C. Phenomenological- hermeneutic study:
 - i) Methodology
 - ii) Various acquired knowledge and meanings
 - iii) Findings that could improve pedagogical practice

2. Second part: **Visualizations in the classroom**
 - A. Water and health (Sandy Levesque)
 - B. Learning a math concept (Manon Lavoie)

3. Third part: **Continuing professional development** (Louise Gaudreau)



STRESS IN CHILDREN: A MODERN WORLDWIDE PROBLEMATIC

- «KidStress» (Witkin, 1999) «Toxic childhood» (Palmer, 2007) «Stress high during China's student exam» (Boden, 2006)
- Suggestive titles from scientific literature touch upon the fact that today's kids are under stress
- «Children today are under much greater stresses than were children a generation or two ago» (Elkind, 2001: The Hurried Child)
- Stress refers to a particular relationship between the person and the environment that is appraised as exceeding resources and endangering well being (Lazarus et Folkman, 1984)
- In the third millenium: **stress is a fact of life for everyone, no matter the age**



«We must regard stress as a basic dynamic in all learning and emotional problems» (Elkind, 2001, p. xvii)





STRESS IN CHILDREN

(continued)

- Although stress is a **normal part of life**, some stressful experiences can have significant and lasting effects on children
- Canadian, American, European and Asian researchers have identified unmanaged stress as damaging to physical and mental health and to social balance
- Moreover, stress contributes to **unsatisfactory learning experiences** in many youths
- Stress management programs have been introduced in various school settings since the late seventies



A STRESS MANAGEMENT PROGRAM FOR YOUTH WITHIN THE FRAMEWORK OF PARTNERSHIP

- Started in 1988 at Notre-Dame primary school in Edmundston New Brunswick, Canada, this stress management program for youth initially surveyed 35 staff members, the students and their parents, on the stress experienced by the children (Guimond-Plourde, 1989)
- During the 1991-1992 school year, teachers and parents were given the opportunity to participate in a stress management program





A STRESS MANAGEMENT PROGRAM FOR YOUTH WITHIN THE FRAMEWORK OF PARTNERSHIP

- Professional development (9 and 15 hours education sessions) gave hands-on experience and needed skills to teachers and parents, who would later become the **students' support system**
- **Overall objective:** provide the young with knowledge and skills to better cope with stress in an increasingly complex world
- At the end of 1992, the entire school staff and two out of three families had committed to the project
- In 1993: follow-up study conducted
- In 2007: project still in force





Visualization: Preferred method of relaxation from the children's perspective (Guimond-Plourde, 1994)

- process whereby people respond to certain themes or suggestions through mental images (Bérubé-St-Amand, 1993)
- method grounded in the confluent education movement developed at the UCSB in the 1970s (Shapiro, 1998)
 - variant in humanistic holistic education: exploration of teaching approaches to educate learners as whole human beings (addresses both cognition and affect)





VISUALIZATION: SCIENTIFIC GLIMPSE

- Various studies indicate that visualization does help students: (references on demand)
 - to be more attentive in class
 - learn more easily the material taught
 - be more involved in class work
 - become more creative (writing and art)
 - get along better with classmates
 - do better on tests
 - feel more confident
 - become more relaxed
- enjoy more fully the learning experience and the environment in which it takes place



VISUALIZATION IN THE CLASSROOM

- In the context of our project, visualization is used as a means of:
 - relaxing and centering, thereby preparing students for any learning task
 - teaching basic subject matter (ex: math or health)
 - increasing awareness of inner feelings, thus strengthening one's own personal set of values and bonding with others



Canadian Broadcasting Corporation (CBC)

- NB Talks: documentary filmed in a 6th grade classroom (20/05/1993)
- Let's meet Francine Bérubé-St-Amand and her students



A PHENOMENOLOGICAL-HERMENEUTIC STUDY

- Even though visualization has been used in sport and medicine for quite some time, its use in the classroom setting is relatively recent (1970)
- An exploratory study was undertaken with teenagers (16 and 17 years old) who had participated in the project while they were in fifth and sixth grade (Guimond-Plourde, 1999)





RESEARCH QUESTION AND OBJECTIVES

- Research aimed at understanding, from the youths' perspective, the meaning of the lived experience of visualization so that various acquired knowledge could be isolated
- **Objective:** have the adolescents expand on what did happen, with how they felt and still feel, many years later, about their participation in a stress management program that called for the integration of visualization in their life (from 1991-1998)



METHODOLOGY: CHOSEN OPTIONS

- **Qualitative approach** because it tends to better suit the ideographic and personal nature of a lived experience like visualization
- The **phenomenological-hermeneutic inspiration** attempts to describe and interpret the meaning imbedded in such a subjective experience (van Manen, 1984; 1997)
- The participants were given the opportunity to describe their lived experience through **life stories** (Atkinson, 1998; Bertaux, 1981):
 - means for understanding how people see their own experiences, their own lives and their interactions with others



VARIOUS ACQUIRED KNOWLEDGE AND MEANINGS: IN-DEPTH INTERVIEWS

- **Development of attitudes that prepare for dealing with stressful situations in and out of school:**
 - «When I heard exams mentioned, I would always get nervous... Now, when I feel really stressed out, or I am afraid to take a test, I sit and I relax for a minute».
 - «Visualization was pleasant, but, most of all, it helped me to do my studying differently. It was more fun and easier than just poring over books for a long time».





Various acquired knowledge and meanings

(continued)

- «Whenever I feel stressed out, I sit and think of the situation. It has a calming effect on me and at the same time it gives me energy».
- «At noon, when I am tired, I put my head down and I relax for ten minutes - to get ready for my afternoon classes. After this, I just sit up and I am ready to start over again».





VARIOUS ACQUIRED KNOWLEDGE AND MEANINGS (continued)

- **Increase in concentration skill:**
 - «I relaxed and at the same time, I was able to really concentrate. Or, as I relaxed, I could think of the material at hand that I already knew».
 - «It seems that visualization helped me to concentrate better. I would be more relaxed and would think of nothing else. I was well focused on the subject at hand which was the test».





VARIOUS ACQUIRED KNOWLEDGE AND MEANINGS (continued)

- **Acquisition of introspective habits leading to improved self-knowledge while facilitating deeper interpersonal relationships:**
 - «Visualization has been instrumental in creating bonds that brought us closer together. It allowed us to have discussions, to exchange».
 - «I used to have difficulty to relax. You know, I was always stressed out. At one point, I said to myself: ‘Why am I stressing myself with this’. From then on, I began to better take things in stride».



VARIOUS ACQUIRED KNOWLEDGE AND MEANINGS (continued)

- **Beneficial effects that improve quality of life:**
 - «Now, I can deal with one thing at a time».
 - «I have lived through difficult situations. I kept myself going with the help of visualization. Each time a difficult situation would arise, I sought refuge in it».
 - «Instead of becoming frustrated, I would sit by myself, or, I would lie down and relax myself with visualization».



VARIOUS ACQUIRED KNOWLEDGE AND MEANINGS (continued)

- **Visualization is a means beyond a pedagogical intervention:**
 - «I started noticing that I was visualizing frequently without realizing that I was actually doing it. The more I do it, the more I feel that I have matured. It has become a second nature».
 - «If I lie down and listen to relaxing music when I don't feel the need to visualize, it still happens».



FINDINGS THAT COULD IMPROVE PEDAGOGICAL PRACTICE

- Visualization in the classroom **works in managing stress**:
 - «We asked for it. At times, just because the atmosphere was tense and we wanted to take time out to relax. Other times, it was simply for the sheer pleasure of it, because we loved the activity».
 - «If visualization had made no difference, I guess I would not have continued with it, but I felt that, for me, it was very useful».
 - «When you see the effects, you are encouraged to do it on your own».



FINDINGS THAT COULD IMPROVE PEDAGOGICAL PRACTICE (continued)

- In the minds of the students, visualization is not an alternative but a **complement to conventional education:**
 - «We took it like a story. The teacher would create a story out of the subject and she would situate us within the story so that we would remember».
- The use of visualization offers renewed means of teaching school programs:
 - «Our teacher used refreshing teaching methods. Before each test, she would have us visualize the spelling of words. Now, every time I write the word 'Edmundston', I think of the way she explained it in a little story».



DISCUSSION: SIGNIFICANCE FOR EDUCATION

- For the participants of the study, school became a '*milieu de vie*', a place in which to grow:
 - «We would get up in the morning and feel like going to school. We worked hard but we liked working. Our teacher would have us working in a way that was fun».
- What teachers do to prepare the environment for learning, and what they do to help students make their bodies, minds and emotions receptive for learning is as important as the lessons themselves



CONCLUSION

- Teachers and parents carry a «pedagogical responsibility»
(van Manen) for the child's cognitive, emotional, social, psychological and spiritual development
- In our partnership program, we have all developed a **caring attentiveness**:
 - Teachers and parents know how they stand in life and relate to the educative process; how they think about children; and most importantly, how they listen and relate to them



A Glass of Water
A Visualization Experience

Sandy Levesque
Teacher
Grades 7 and 8

Program

- Learning objective
- Quiz
- Preparation process for visualization
- Visualization
- Results from quiz

Learning Objective

- Grade 8 health program

“Explain the importance of necessary habits in maintaining overall health”

Quiz



Visualization session

- Choose a place (the classroom)
- Soothing background music (ex. Pachelbel's Canons)



- Suitable positioning with eyes closed



- Breathing exercises to attain relaxation

Visualization session (cont.)

- Read text (teacher designs the visualization to fit the learning task to the cognitive objective)
- Conclude the exercise
- Encourage expression

Visualization

- Students are asked to imagine their favourite drinking glass
- They take the glass in their hand.
- They fill the glass with refreshing water; the water is clear, pure and at the perfect temperature.
- They drink the water in order to quench their thirst.



Visualization (cont.)

- The water tastes and feels good when they drink it.
- They are encouraged to feel the water travelling, giving them a fresh, cleansing sensation as it goes through each part of their body.
- They feel good and refreshed.
- They place the drinking glass back and slowly return to the classroom when they hear the sound of the rainmaker.



Results From Quiz

- Quiz 1
 - 51% drank 6 to 8 glasses or more of water
 - 70% said water was their 1st or 2nd choice
- Quiz 2
 - 68% drank 6 to 8 glasses or more of water
 - 75% said water was their 1st or 2nd choice

Learning Math Through Visualization

Manon Lavoie
First grade teacher



Learning a Math Concept

The children have to learn to compare objects with the terms **the same**, **more** and **less**.




My Class



- France Pelletier: Student Teacher
- 17 students
- Age: 6 or 7 years old



The Steps to the Visualization

1. Choose a place : In the class
2. Forseen a background music: Yanni's Whispers in the Dark
3. Forseen work for the ones who do not wish to participate : 
Mandalas
4. Prepare in advance the material to be used during time sharing: Colors and paper.
5. Choose the visualization text: Inspired by Galyean (1990), I wrote the text « The visit to the castle » that will follow.
6. Encourage comfortable position and ask students to close their eyes: Position shown on the next slide.
7. Suggest deep breathing exercises: Same method as Sandy.
8. Read text: « The visit to the castle »
9. Conclude the exercise
10. Encourage expression: Drawings done by students



6. Encourage a comfortable position and ask students to close their eyes.




7. Suggest deep breathing exercises to attain relaxation



8. Read the Text

The Visit to the Castle

 The text that will follow is used without visual support. The children have to evoke their personal images.

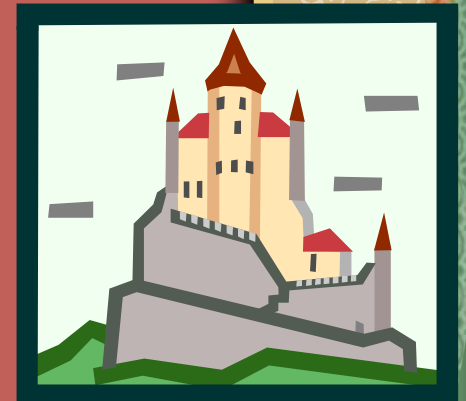


8. Read the Text

The Visit to the Castle

🎨 We will now travel in the air
🎨 and fly to a castle.

- 🎨 What's its color?
- 🎨 What is it made of?
- 🎨 Does it have windows?
- 🎨 How many towers does it have?



In the Castle

- At the entrance of the castle, you see a guard that welcomes you. He brings the door down and lets you in.
- You now see a long hallway where a door attracts your attention. You decide to open it.
- Inside you discover teddy bears.



The room of teddy bears

- There's a blue teddy bear.
- There's a red teddy bear.
- There's a yellow teddy bear.
- There's a green teddy bear.
- There's also an orange one.
- Let's count to find out how many teddy bears are in the room. 1,2,3,4, 5. There are five teddy bears in the room.



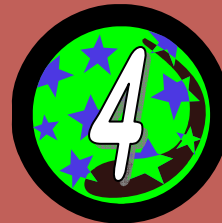
The room with balls

- There is a door in front of the teddy bear room.
- You are very curious to see if there's more teddy bears in that room.
- When you open the door, you find out that this room has balls inside.




The room with balls

- There's a blue ball.
- There's a red ball.
- There's a yellow ball.
- There's a green ball.
- There's also an orange one.
- Let's count to find out how many balls are in the room. 1,2,3,4, 5. There are five balls in the room.



Comparing for the teddy bears and the balls.

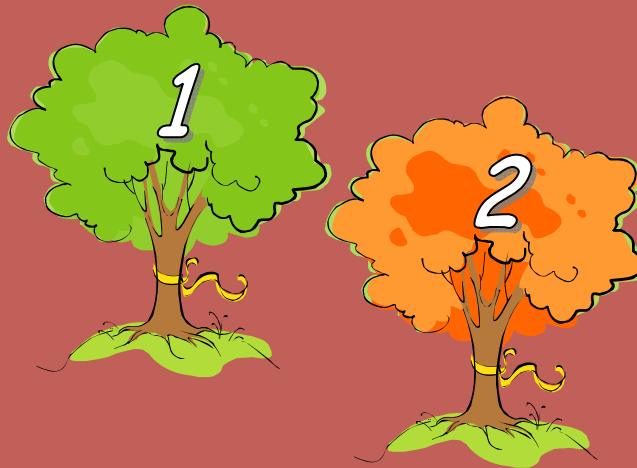
 You remember that there were five teddy bears in the other room. If you compare to the five balls in this room, you realise that you have the same amount of teddy bears and balls.

 Five is **the same** as five.



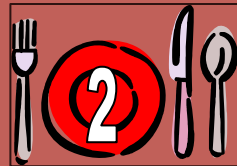
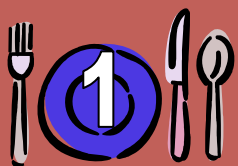
The garden

- Then you decide to go visit the garden.
- You see a red flower. You smell it.
- You see a yellow flower that you also smell.
- There is another flower. It's blue. It smells like no other flower you have ever smelled.
- Let's count how many flowers are in the garden.
- 1, 2, 3. There's 3 flowers in the garden.
- When you look around, you notice trees.
- There's a tree with green leaves and a tree with orange leaves.
- Let's count. 1, 2. There are 2 trees in the garden.
- There's more flowers than trees in this garden. 3 is **more than** 2.



The kitchen

- You return to the castle to discover something new.
- You go at the end of the hall. There you find the cook in his kitchen. He is setting the table. He has placed glasses and plates.
- He placed a blue glass
- a red glass
- a green glass
- and a orange glass.
- Let's count the glasses. 1,2,3,4. Four glasses are on the table.
- He has started to put the plates but has not finished.
- You see a blue plate
- and a red plate.
- 1, 2. There are two plates on the table.
- There are less plates than glasses. 2 **is less** than 4.



9. Conclude the exercise

- We are now going to return to class. You say thank you to the chef for his hospitality.
- You follow the hallway and take a last peek at the 5 teddy bears and at the 5 balls. You remember that there's the same amount of teddy bears as balls.
- At the door of the castle, you smile at the guard that smiles back at you.
- You say goodbye to the gardener and notice that there is still more flowers than trees in the garden.



- You now feel very light and start floating in the air. You feel calm, safe and in harmony.
- While you are floating, take five deep breaths.
- When you are ready, you can open your eyes.




Visualization done in class in three steps

- First step: We created of castle and visited the rooms with the bears and balls. The concept of « the same as » was introduced.
- Step two: The second time we returned to the castle. We revisited the rooms where they hugged the bears and bounced the balls to activate their senses. We then went to the garden. The concept of « more than » was introduced.
- Step three: The third time we returned to the rooms, revisited the garden and then went to the kitchen. The concept of « less than » was introduced in the last visualization.
- I started with the concept of « the same as » because it's the one the children have the most difficulty grasping. By doing so we worked on it at three different occasions.



10. Encourage Expression

Step one:

 The children drew the teddy bears and the balls. They also talked about their castle.

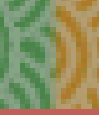


The bears and the balls



10. Encourage Expression

 Step two:

 They drew
the flowers and the trees.

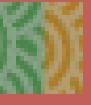


The flowers and the trees



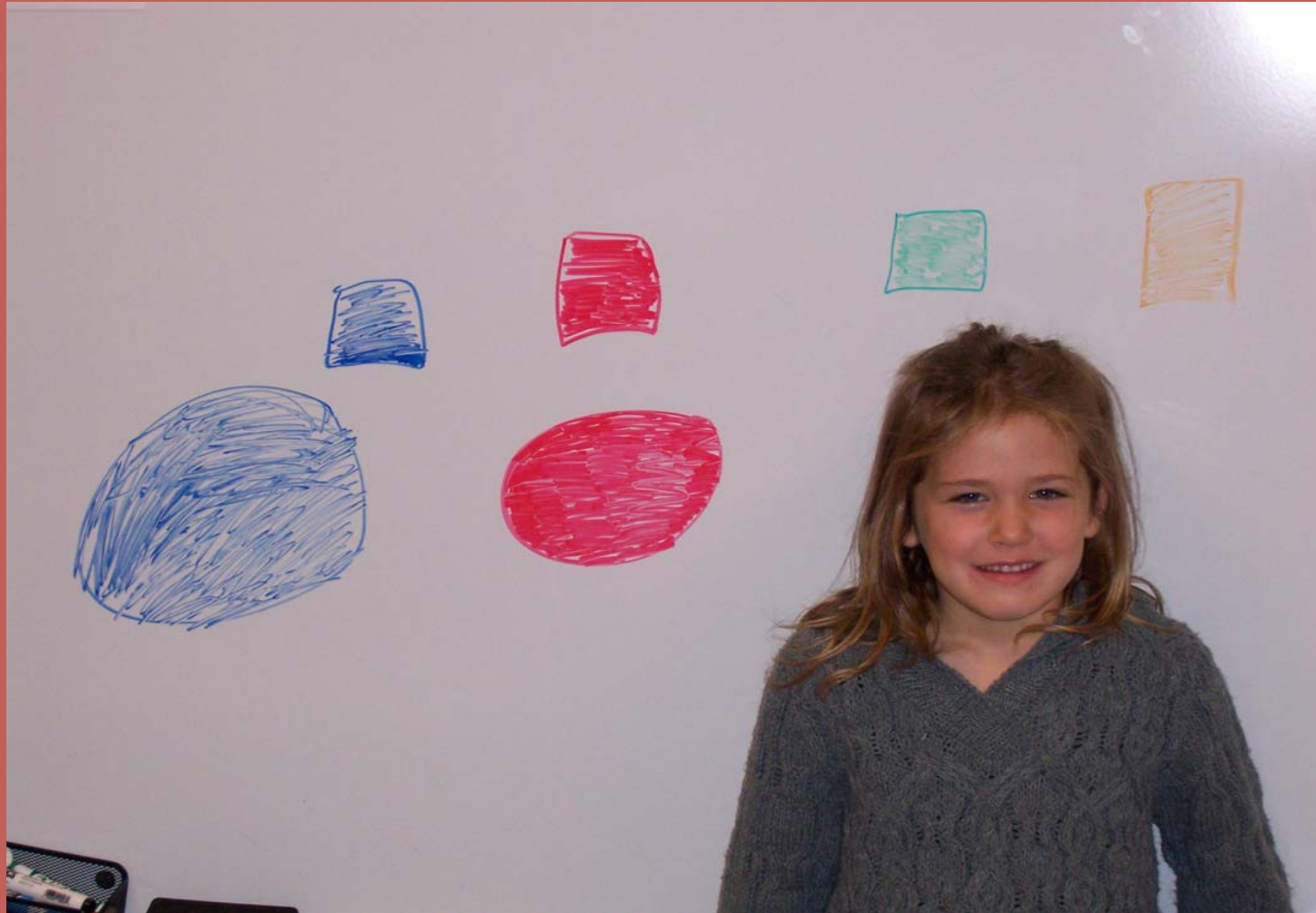
10. Encourage Expression

 Step three:

 A student drew
the glasses and the plates
on the board.



The glasses and the plates





Supporting a Stress Management and Visualization Project in a School

Louise Gaudreau
School Principal
Notre-Dame School





Who are We?

- Where do we live in Canada?





Who are We?

- What kind of school is Notre-Dame School ?



The Significance of Our Logo

Each star tip represents the different partners which are: the parents, the staff, the district and the community.

The sun symbolises the student at the center of his or her learning.





School Context

- *Province of New Brunswick – 800 000 people*
- *City of Edmundston - 18 000 people*
- *447 students*
- *Age of students: 5 to 13 years old*
- *19 classes from Kindergarten to grade 8*
- *28 teachers*
- *17 non teaching staff members*
- *Primary school in a small urban area*





ÉCOLE NOTRE-DAME





Keypoints

- What are my beliefs?
- How can a school principal support a stress management and a visualization project in a primary school?
- How can a school principal promote teacher continuing professional development?





Beliefs

- ...this type of project requires new tasks and creativity
- ...the organisational environment of Notre-Dame School is rather stable but people who work in it accept to be adventurous
- ...part of the staff is «skilled » in visualization while the other part is «in training »

A leader has to be flexible in his or her leadership approach to allow for growth and success is this project





How to support a stress management and visualization project in a primary school

- Support of parent School Support committee
- Support of school staff
- Support of school district
- Committee that includes representatives of all stakeholders in school change: parents, teachers, school district
(partnership)





Student teacher

parents

teacher

teacher

parents

teacher

School principal

School assistant principal

University professor



... Public Health Nurse, responsible for the Healthy Learners in School Program



2006-07 committee



How to Support a Stress Management and Visualization Project in a Primary School

(continued)

- Long term goal, part of an ongoing activity, not a single event
- Emphasize impact on academic achievement and on affective development
- Allow teachers to volunteer participation: respect attitude and expertise





Long Term Projects

- must remind the school team of the importance of our shared vision

*A growing learning community:
engaged students, high performance*

- must be part of a staff development program





How to Promote Teacher Continuing Professional Development

First Steps

- Review policies and agreements with staff
- Conduct a needs analysis
- Know your staff – be conscious of needs and interests
- Listen to parents' preoccupations





How to Promote Teacher Continuing Professional Development *(continued)*

Helpful Hints

- Have confidence in your teachers
- Empower teachers to accomplish their jobs more effectively and to grow as professionals (let ideas emerge, let them be part of or in charge of some training and planning functions)
- Emphasize what will improve academic achievement
- Mobilize resources





How to Promote Teacher Continuing Professional Development *(continued)*

Helpful Hints *(continued)*

- Show relationship with school and district vision, beliefs and mission
- Seize the opportunities (interests, passions, needs) to accompany teachers, to encourage them
- Make your development program part of the school planning process
- Develop and implement action plans





How to Promote Teacher Continuing Professional Development *(continued)*

Four key actions that have guided me for successful leadership throughout this project:

- ❖ Inspire a shared vision
- ❖ Challenge the success
- ❖ Enable others to act
- ❖ Encourage the heart



(Kouzes and Posner, The Leadership Challenge, Jossey Bass, 2002)





Special Thanks to:

For their support

Notre-Dame School staff
Notre-Dame School Stress Management Committee

Madeleine Dubé

Jean-Claude D'Amours

Bertrand Beaulieu

Alain Poitras

Francine Bérubé

Lise Collin

Guilmen Smyth

Nelson McGoon

France Pelletier

Andréanne Bossé

Jacques Paul Couturier

Isabelle Carrier

Joëlle Massicotte

Members of our respective families

For financial assistance

Bertrand Beaulieu, district 3 superintendent

L'association des enseignants francophones du N.B. (AEFNB)

New Brunswick Teachers Association (NBTA)

Le Ministère de l'Éducation du Nouveau-Brunswick (through Innovative Learning Funding)

FESR





Questions





- Renée GUIMOND-PLOURDE Ph.D
plourder@nbnet.nb.ca
- Louise GAUDREAU (principal)
louise@nbed.nb.ca
- Manon LAVOIE (teacher)
lavoiman@nbed.nb.ca
- Sandy LEVESQUE (teacher)
Sandy.Levesque@nbed.nb.ca

