

DR. STIRLING MCDOWELL  
*Foundation*  
FOR  
RESEARCH INTO TEACHING



**TEACHING AND LEARNING  
RESEARCH EXCHANGE**

**The Adaptive  
Dimension:  
The Road  
Not Taken**

Team Do-Well  
Birch Hills School

Project #39  
October 2001

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# Acknowledgements

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I wish to acknowledge Dr. Stirling McDowell and the McDowell Foundation. I heard Dr. McDowell speak at a Learning from Practice conference soon after I began this research project. I was impressed with his sincerity and belief in the importance of classroom research. Dr. McDowell's conviction that practicing teachers must make inquiries as they perform their daily work led me to believe that I could make a contribution. His belief in the importance of teacher observation and reflective practices in the classroom setting has inspired teachers to question their practices and strive for something better for their students. I regard some of our group discussions to be the most challenging and stimulating of my career. I know I am a far better teacher for having the benefit of this experience.

I am grateful to my Team Do-Well Members. Their patience, understanding and support of one another allowed risk-taking to occur and provided thoughtful reflection when concerns were raised. I value their professionalism and believe we are all stronger for sharing this research experience.

## TEAM DO-WELL MEMBERS:

Eldon Danielson	Sherry Doderai
Linda Hryciw	Terry Jelinski
Sharon Mitchell	Ken Morrison
Melanie Suchorab	Valerie Turgeon
Tanis Quaale	Janet Ruder
Pam Rybinski	Bev Walker
Denise Wilkinson	

Finally, I thank the students who lead us down our uncertain path. Their excitement and willingness to show us that they could take back responsibility for their learning cemented the group's resolve to travel with them down this rather unconventional course. The learning process that transpired was significant for both student and teacher.

*– Cathy Mills*



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## Question

If a model is developed whereby teachers and students take an active role in the implementation of the “Adaptive Dimension”, would it make a difference to:

1. teachers’ willingness to implement?
2. the effectiveness of the Adaptive Dimension?

# Our Query

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The Saskatchewan Education document, *The Adaptive Dimension*, recognizes the diverse needs of students and provides teachers with “authorization as well as direction” (p. 6) to make changes to curriculum in the areas of content, instruction/evaluation and environment. The changes are intended to help ensure success for all students.

Teacher implementation of *The Adaptive Dimension*, however, has been difficult. The document has been met with reluctance and is often misunderstood.

Teachers who use *The Adaptive Dimension* believe (or have been led to believe) that the onus is on them to adapt for their students. The document supports this traditional belief when it suggests that teachers:

...exercise professional decision making to determine which adaptations to curriculum, instruction, and learning environment, if any, are required to help students to maximize their learning potential. (*The Adaptive Dimension*, p. 17)

Prior to the research, the research team believed in and, to some extent, practiced the traditional delivery of the Adaptive Dimension, in which adaptations were the responsibility of teachers. Very soon thereafter, our beliefs were challenged by a very simple question – “Who can best make adaptations to ensure student success?” Our hunch was that the answer is “the student” rather than “the teacher”.

Our answer to this basic question was a major leap forward and the beginning of a mind-shift. No longer would the team approach the Adaptive Dimension from the point of view of teacher responsibility but rather from the point of view of shared responsibility – teacher and student working together to create the best possible learning situation.

A closer look at *The Adaptive Dimension* was encouraging. In what appears to be a contradiction to the statement quoted above, the document states that adapting is not a teacher responsibility but one that is shared by both teacher and student.

The role of the students changes from that of a passive receptor of knowledge to a participant in the learning process. In other words, there is a shift from a teacher-centered classroom to a student-centered classroom in which students take responsibility for their learning and develop a feeling of ownership for their learning and ideas. (*The Adaptive Dimension*, p. 5)

This statement, coupled with current research (for example, the work carried out by Caine and Caine and Gardner), became the basis for our exploration. The story of our journey is one that we are excited to share.

# Let Us Introduce Ourselves

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My name is Cathy. Tanis, Terry, Val, Janet, Denise, Sherry, Linda and Bev joined me in my research. Together we became known as “Team Do-Well”.

This original group of 9 members quickly grew to a research team of 13. As the school year progressed and Team Do-Well members shared their enthusiasm for the project, other teachers, including one from a neighboring school, joined us.

Together we brought to the research a diverse range of career stages, experiences, subject areas and grade levels. Representation from all subject areas of the kindergarten to grade 12 continuum provided a broad base for the research.

Although the composition of Team Do-Well was very diverse, commonalities also emerged. Teachers held many common beliefs about the teaching/learning process and were open to exploring the role that students played in this process.

# Our Task

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*The Adaptive Dimension: The Road Not Taken*, a research project sponsored by the Dr. Stirling McDowell Foundation and carried out by Team Do-Well, looked down the road not taken. It examined **students sharing the responsibility** for implementing one of Saskatchewan Education’s foundational structures for the provincial curriculum – the Adaptive Dimension.

# Our School Community

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Birch Hills School is a part of Saskatchewan Rivers School Division. It is a kindergarten to grade 12 school of approximately 500 students. It is the only school in the rural community 20 minutes southeast of Prince Albert. Although the population of Birch Hills is approximately 1,000, the school draws students from the surrounding rural municipalities and Muskoday First Nations.

Traditionally, “family” at Birch Hills School meant a family with two parents who earned their living by farming. It was common for parents to be ex-students of Birch Hills School. However, in the past 10 years changes have occurred. The definition of “family” has expanded as more Birch Hills families travel to Prince Albert to work and more families in the community are transient.

# Our Research

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## IN THE BEGINNING...

A synopsis of the research proposal was sent to all staff members in June 1998. An invitation was extended to become part of the study. Interested teachers attended a meeting after school to discuss any questions or concerns. Eight teachers then met in September 1998 to begin exploration of the research question. The team established beliefs and guiding principles that became foundations for our learning community.

## BELIEFS AND GUIDING PRINCIPLES

### **ABOUT TEACHING AND LEARNING**

1. Learning has to be fun.
2. Learning has to be physically, emotionally and psychologically safe.
3. Behaviour is situational.
4. Education is bringing children from where they are to somewhere further ahead.
5. Education is more than just book learning.
6. Education is a team/community effort.
7. We need to let ourselves and our students not be perfect.
8. Parents are advocates not enemies.

### **ABOUT THE RESEARCH**

1. It is a learning process for teachers, students and community.
2. It is an experiment in which we keep the good and discard the bad.
3. It is aimed at the individual.
4. It is for everyone (in class).

## **ABOUT OUR LEARNING COMMUNITY**

1. We all have the same goal but don't have to do the same thing.
2. We can say what we believe without fear.
3. We need to communicate. Communication is important.
4. We need to give ourselves time and energy so that the project can work. We need to take care.
5. We need to give ourselves permission to choose the best times to work together.
6. We need to respect each other's needs.
7. We need to create an identity. We need rituals that help do this.
8. We need to build in fun.

## **ABOUT MEMBERSHIP**

1. Participation is voluntary.
2. Members have shared beliefs and values.
3. Members have identified guiding principles.
4. Members have common goals.
5. Each member understands it is possible to "do it in your own way".

To enhance the journey and create a sense of community and trust, the team made a conscious attempt to recognize, respect and honour diversity. With the foundations in place, our journey began...

# FIRST STEPS

## UNDERSTANDINGS

The first meeting was a morning meeting held at school. Members talked about their understanding of the Adaptive Dimension and the question posed by the researcher. Teachers spoke of their current frustrations in trying to accommodate students of varying abilities within regular classroom programming. Team members related stories of students who had experienced failure and students who seemed to be disengaged from the learning process.

## MUDDLINGS

Many hours of discussion and problem solving went into trying to make meaning of our understandings and identify our next step. The scary part of this whole process was embedded in the word “share”. If students were to share in the responsibility, teachers would have to “give up” some elements of teaching and learning that are traditionally “theirs”, such as control, decision making and choice. How could teachers possibly maintain their integrity, professionalism and sense of responsibility if they relinquished some of those precious elements? And then, what would the larger community think? Fully aware of these concerns, we set out not only to “let go” but to create conditions for students to reach out and buy into the partnership.

A turning point in our muddling occurred with the realization that preschool children are, for the most part, in charge of their learning. They make the decisions about what, when and how they are going to learn. It is on entering the school system that this responsibility is gradually stripped away and replaced with external directives about what, when and how learning will occur. Returning to students many of the responsibilities for learning was the essence of what we wanted to accomplish.

With that realization, two challenging questions emerged:

- What changes did students need to make?
- What changes did teachers need to make?

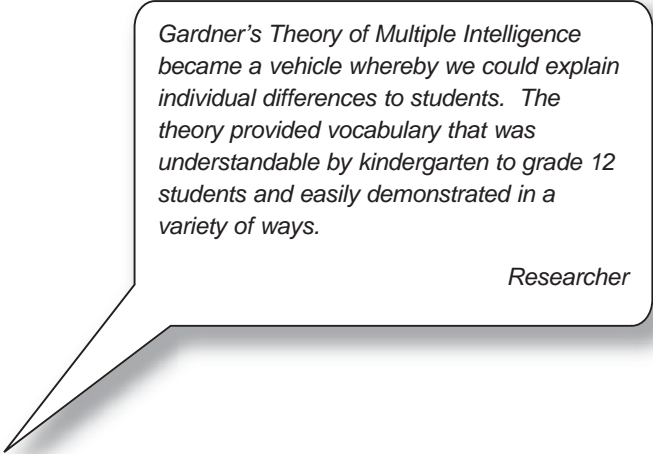
Identifying student changes seemed to be relatively easy. By adopting a “toolbox” metaphor, teachers could easily identify critical tools students needed to become successful learners. Students could simply place tools into the toolbox and choose a tool as needed.

For teachers, however, learning how to transfer responsibility to students was far more difficult. It was, in fact, downright uncomfortable. We would have to create opportunities for students to use the tools. In spite of the discomfort, we felt like we were on a roll!

# THE TOOLBOX

So, what were those critical tools? Gardner's Theory of Multiple Intelligence was presented to members as a possible starting point for further study. We watched the video, *How are Kids Smart? Multiple Intelligence in the Classroom*, featuring Howard Gardner. Some team members had positive experiences using Multiple Intelligence (MI) in their classrooms. Others saw how MI theory honored student diversity and could enable students to experience success.

Yes. Multiple Intelligence theory was a good tool to put into the students' toolboxes.



*Gardner's Theory of Multiple Intelligence became a vehicle whereby we could explain individual differences to students. The theory provided vocabulary that was understandable by kindergarten to grade 12 students and easily demonstrated in a variety of ways.*

*Researcher*

The process of deciding to use Multiple Intelligence as a tool helped us identify criteria we would use as a lens to decide about other tools for the toolbox. These criteria included:

- support for the tool in current research;
- endorsement by positive teacher experiences; and
- honor for student diversity.

Tools that met the criteria included:

- Multiple Intelligence
- Learning Styles/Modalities
- Goal Setting
- Bloom's Taxonomy
- Choices
- Memory Strands
- Note Taking Strategies
- Second Step
- Risk
- Responsibility
- Self-Evaluation
- Quality Work
- Emotional Intelligence
- Study Strategies

In keeping with the predetermined goals and beliefs of Team Do-Well, these strategies were used from kindergarten to grade 12 with varying degrees of intensity and commitment.

# EQUIPPING STUDENTS – A WALK IN THE PARK

All team members, in their own way, proceeded to introduce the tools to students and demonstrate applications of each tool. As tools were introduced, students learned some of the theory underlying them, their various components, the inventory used with each one and ways of making personal meaning of the tools.

Finally students were given an opportunity to try the tools, and guess what? They loved it! They loved seeing themselves on paper; they loved the recognition; they loved connecting who they thought they were to what they were seeing about themselves on inventories; they loved examining their parents, friends and teachers to see how they learned. Most important, they loved being able to understand so many “whys” in their lives, for example:

- Why am I not good in math?
- Why do I leave my writing assignments to the last minute?
- Why do I hate tests?
- Why do I have to talk to myself when I am studying?
- Why do I never get along with Mr. Smith?

From the kids’ responses, we learned that teaching the tools had value. Knowing something about their learning styles, their areas of strength and areas of weakness was important for students.

At the same time, we found that offering students the opportunity to practice using each tool created anxieties, which led to questions for each team member:

- Could this knowledge help students take some ownership for the adapting process?
- Could students then understand why they did well in one subject and not so well in others?
- Could they learn to use their areas of strength, not only to showcase them, but also to support areas of weakness?
- Could they choose to demonstrate their knowledge or understandings through their strengths rather than doing only what the teacher suggested?
- Could this knowledge even help students see they do not have to blame others for their difficulties?
- Would there be enough return for all the effort?
- Was I going to lose control of my class?

We had developed enough questions to stop us from moving ahead with our ideas. The questions created anxiety because we did not have answers and we were novices ourselves at using the tools. Instinctively, we knew we had to move ahead, but at what cost?

## PROVIDING OPPORTUNITIES – BUMPS IN THE ROAD

The tough part for the research team was to continue giving students more opportunity to use their tools. That course of action meant giving up some control. Why was this so hard? It became apparent that we had to deal with the issue of power.

In our traditional situation, how much of what we were doing had to do with good teaching and how much had to do with power? Our reflections indicated that much of what we did as teachers was perhaps power-based and, therefore, we needed to make changes in our teaching. To deal with the power issue, we had to determine what practices we could retain and what practices we could risk relinquishing.

A passage from *The Power of Perceptual Change* by Caine and Caine seemed to speak to our confusion:

We frequently found that even when teachers had high self-efficacy, were broadening their cognitive horizons, wanted to engage in a more constructivist approach to learning, and were engaging in self-reflection, they had great difficulty facilitating rather than directing or controlling the learning of their students. And although none of the changes necessary for Perceptual Orientation 3 are easy, letting go of control is the one change the majority of teachers identified as most difficult. (Caine and Caine 1997, p. 150)

Retaining power and control over practices that contributed to good teaching and learning was critical. Practices that contributed to a positive atmosphere, healthy relationships and respectful attitudes were “non-relinquishable”. Team Do-Well was not prepared to let them go or to allow students to believe that teachers were abdicating their authority.

On the other hand, the members of Team Do-Well recognized they might be exercising some powers that had nothing to do with creating positive conditions for teaching and learning. For example, telling a student how she could demonstrate her knowledge of the literary character, Jean val Jean, had little to do with maintaining order in the classroom and everything to do with maintaining power. What would be wrong with transferring some power from teacher to students by allowing them to choose how to demonstrate their knowledge of the character of Jean val Jean? Perhaps the teacher could outline criteria needed to ensure student understanding of the character. Students could use a tool from their

toolboxes in choosing their own method of demonstration, using one of the multiple intelligences.

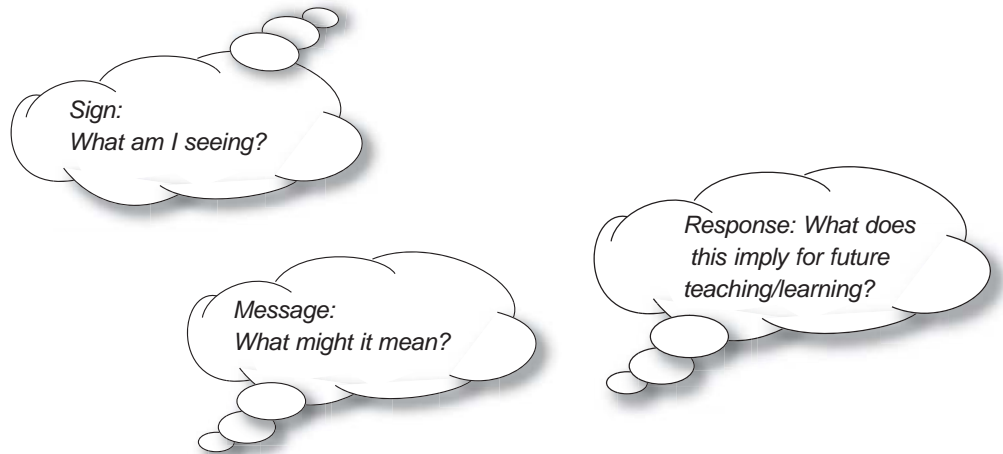
In this example, teachers decided what needed to be taught, how to teach it and the criteria required to demonstrate knowledge. However, the members of Team Do-Well quickly learned that they could vary those choices according to their goals or objectives. While the teachers were very clear about what needed to be taught, they were more relaxed about the manner in which students learned and demonstrated their understanding. Movement towards more student responsibility in these areas was not losing control but a shift of control – exactly what we wanted!

Although dealing with the power issue may appear to have been easy, it was not! It was agonizing; it was time consuming; and it was rehashed from meeting to meeting. Just when we thought we had a handle on it, we would find ourselves slipping into old patterns and have to force ourselves to ask the question again: **Is what I am doing about power or good teaching and learning?** Part of our struggle was our commitment to our own guiding principles. Not all team members made the mind shifts at the same time. Supporting and valuing each other in this process was a challenge but a valuable learning experience that we could transfer to our classes.

Although the bumps on our road might have been enough to keep us from moving ahead, it was the students who helped clear the way for us. Their enthusiasm and greater demonstration of knowledge reinforced the value of the change and was motivating for teachers. As actions facilitated the transfer of powers, the **partnership** began to emerge. The students themselves were beginning to drive their learning through understanding and conscious choices.

# STUDYING ROAD SIGNS

Students had their tools, the teachers were giving them opportunities to use them, and the process of developing the partnership was evolving. With these innovations, unanticipated signs of change emerged in both teachers and students. Observing, questioning and learning about the signs along the road became critical. Teachers became very conscious of their roles in making meaning of the signs and allowing those meanings to direct their teaching. They observed behaviours in students, questioned the messages behind the behaviours and learned about changes they needed to make in their teaching.



The process may be illustrated as follows:

- **Sign:** Josh refuses to follow the text during oral reading. Instead he sits staring at his desk. Josh meaningfully contributes to class discussions following the reading.
- **Message:** Is Josh being defiant **or** is he using one of our tools and adapting to his learning needs?
- **Teacher Response:** If he is allowed to listen rather than follow, is there a positive difference in his comprehension? Perhaps Josh is demonstrating a preferred learning style rather than defiance.

Students too read the signs and were compelled to make meaning of them. The process invited them to observe, question and learn what the new process meant to their own learning and behaviour. For the first time, they were encouraged and expected to adapt assignments to meet their learning needs. They had to know and acknowledge who they were as learners and partners.

Luke's thinking, which is outlined below, demonstrates how a student may go about using the tools to adapt to his learning style:

- **Sign:** A classroom assignment and criteria are provided.
- **Message:** What does Mrs. Mills want me to demonstrate in this assignment? What criteria has Mrs. Mills outlined for quality work? What choices do I have? Which option best matches my learning style and will give me the best chance of getting a good mark?
- **Student Response:** Great – I am not very good at writing and art so I will do a radio talk show! I can also use my “music smart” in doing this assignment. I am happy with the radio report I did. I showed all the information I needed to and I thought the music I picked added to my report. The part about my radio report I would change would be my time line – I left too much too close to the due date. On a scale of 1-10, I feel I put in an effort of 9 to get my assignment done.

Luke used the tools of Multiple Intelligence, learning styles and self-evaluation. He and other students were proud of the work they did. Students truly embraced the opportunity to use the tools teachers put into their toolboxes.

Interestingly, just as it was difficult for teachers to give up a portion of control, some students had difficulty assuming control. They still needed validation by the teacher in charge. Even though they were more enthusiastic, more engaged and more confident of their work, they still needed the teacher to say, “You are doing well here and can improve there.”

On one hand, our consciousness of the signs undoubtedly challenged Team Do-Well's thinking. On the other hand, the positive signs kept the team moving along the road to developing the Adaptive Dimension partnership we were seeking. Yes, we had fuel for our engines! We were pleased!

*I was amazed during their presentations. I had helped the four boys quite a bit with their instruments, so I knew what theirs were like. The other presentations were largely a surprise. Each team was so proud of their work and they could see how their peers appreciated their presentations. Each group received an “A” for this assignment.*

*Researcher*

# SHARING OUR EXCITEMENT

## PARENTS

The Adaptive Dimension partnership was a major shift at Birch Hills School. Extending the partnership from students and teachers to include parents was very important to the process. Information was shared with them, and feedback was welcomed. Most important, parents were invited to experience the changes through direct participation and classroom observation.

Home and School Meetings, Parent-Teacher Interviews and Education Week became natural times for both formal and informal exchanges. Bulletin boards and newsletters became avenues by which information was shared. Parents were even asked to complete the same inventories as their children to discover how parents were smart. Their children were given opportunities to analyze similarities and differences between themselves and their parents and what those differences meant.

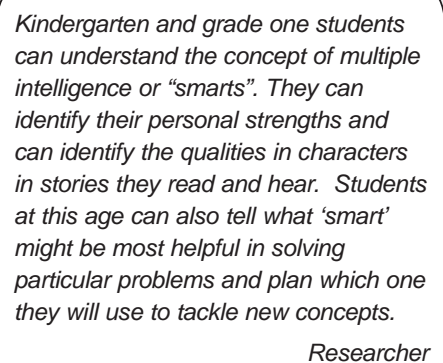
## OTHER STAFF

As previously stated, not all staff members at Birch Hills actively participated in the research. Although membership in the research team was totally voluntary, it was important to Team Do-Well to be an inclusive rather than exclusive group. Keeping other staff members informed served two purposes: it helped create a fit between the research group and the rest of the school, and it kept the door open for others to join as they became ready or felt a need.

To facilitate the communications process, Team Do-Well's research was added to the agenda for each staff meeting. Team members shared their latest classroom experiences and professional readings. Although this was initially difficult because not all staff members had the same vocabulary, perseverance allowed the exchange to become easier with each meeting.

To enhance its inclusiveness, Team Do-Well shared its Adaptive Dimension model at a full day inservice. Researchers reviewed with staff the research question and student/teacher partnership objectives. Important concepts and processes such as the toolbox, power and control, choice, and opportunities to use tools, were reviewed and clarified.

Just as the research team began its journey with Multiple Intelligence, it was chosen by the group to be the starting point for bringing understanding of the project to the rest of the staff. This



*Kindergarten and grade one students can understand the concept of multiple intelligence or "smarts". They can identify their personal strengths and can identify the qualities in characters in stories they read and hear. Students at this age can also tell what 'smart' might be most helpful in solving particular problems and plan which one they will use to tackle new concepts.*

Researcher

was very timely because 11 team members had attended a conference on “Teaching FOR, WITH, and ABOUT Multiple Intelligences”. David Lazear, the speaker for the conference, helped to solidify the reading researchers had been trying to incorporate into their practice. Previously, researchers had been using multiple intelligences primarily to assess student learning. Experiences at the conference helped the team begin to understand how MI theory could be used as a method of “intake” as well as “output”. Information from this conference provided the catalyst for many team members to incorporate other tools in the toolbox.

Staff members at Birch Hills School were given information on Gardner’s theory. Teachers participated in an “8-in-1” lesson similar to one Lazear provided at the conference, whereby teachers actually used the intelligences to understand the theory. Staff discussed how the theory could be applied across all grade levels and subject areas.

As a result of this information, other teachers asked to join the research group and began their own journey of rediscovery of the Adaptive Dimension. Posters illustrating various intelligences were developed for students at different age levels. Winnie-the-Pooh, Garfield and a variety of Disney characters appeared on posters throughout the school showing “how they were smart”.

## THE WATERING HOLE

The diversity of the research team took individuals down their own paths as they explored the applications and implications of their new view of the Adaptive Dimension. Monthly meetings became a “watering hole” where all members gathered to recharge, exchange stories, gather new provisions and make new plans. Story telling became a vital source of assessment, encouragement and information sharing. Rich student experiences followed closely by teacher elation were a natural theme.

*I loved the sharing of ideas, successes and the not-quite-successes.*

*Researcher*

*It [meetings] was extremely inspiring to me as a professional. I enjoyed the opportunity to try new things and best of all, the time to bounce ideas off my colleagues.*

*Researcher*

This quote talks about a verbal book report assignment:

*This year we talked about how connecting real objects to parts of a novel helped them remember those parts. We did some memory checks and students were amazed at how much they remembered about each book. We then discussed strategies for studying.*

*Researcher*

With each new story, more experiences unfolded. Stories told how students accepted responsibility for their learning, students desired to put in extra effort, and increased work quality prompted teachers to become better “observers” of their students. In response to these stories, team members became willing to take more risks in the partnership. Students were allowed more responsibility in their

choices; students were expected to identify high quality work; and through self-evaluation, students indicated how their work might have been improved.

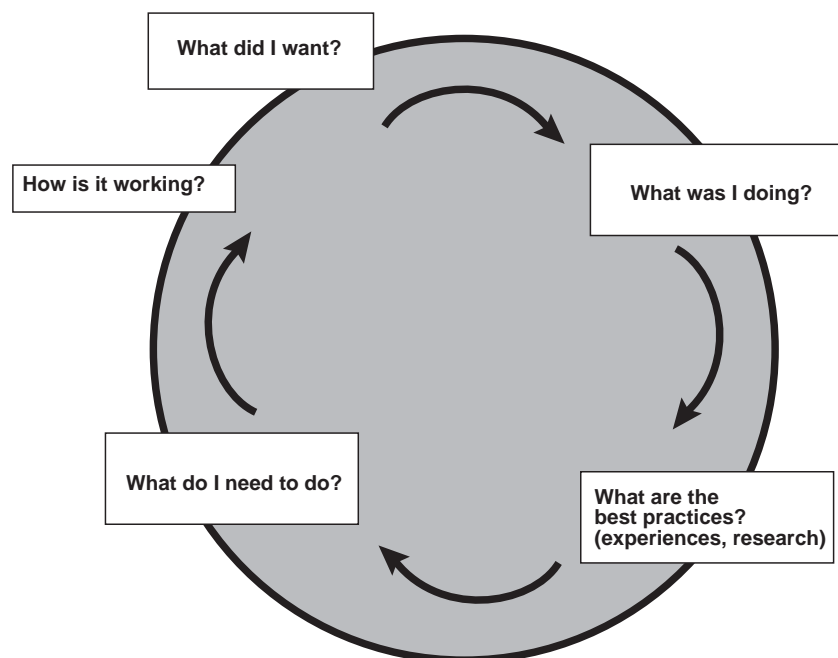
*Students who are not “test” inclined can still demonstrate their understanding. Also some of the brighter students “pushed up” their creative thinking by proposing assignments which required far more effort than memorizing for a test.*

*Researcher*

## THE TRAVEL DIARY

### JOURNALS AND PLANNING – THE REFLECTION WHEEL

Team members were asked to keep a journal of their thoughts and experiments in the classroom. At first, there was no formalized format for journal entries. Gradually the group developed a journal format in the form of a reflection wheel that posed a number of questions.



The journal reflection wheel became a lesson planning format, and later, it became a meeting planning formula as Team Do-Well substituted “We” for the word “I” in an effort to maintain consistency in the journey.

A journal was kept of the discussions at each meeting and circulated to group members for reference between meetings. Researchers voiced their concerns about directions in which certain group members were heading. They questioned the whole “power” issue and whether they, as individuals, could move in a direction that allowed students as much freedom as other researchers were comfortable with. Rather than inhibit group reflection, this questioning strengthened it.

## **SURVEYS**

Researchers used a variety of surveys to gather some data. Surveys were reflective in nature asking students to identify understandings of concepts rather than providing quantitative answers. Types of surveys included:

- *Classroom* surveys, which indicated students’ understanding of tools for learning and were used to:
  - check grade one students’ understanding of the Adaptive Dimension;
  - have grade six students identify their best work throughout the school year;
  - check grade eight students’ understanding and willingness to use tools they had studied throughout the year;
  - gain feedback from grade nine students on teaching a novel using the Multiple Intelligence strategy; and
  - gather feedback from secondary students on teaching with a variety of Adaptive Dimension strategies.
- *Self-evaluation* surveys used to:
  - indicate students’ satisfaction with their efforts on assignments;
  - identify particular learning style preferences; and
  - establish personal multiple intelligence profiles.

# QUESTIONNAIRES

## PARENT

Parents were continually asked for feedback on classroom assignments and projects. They provided valuable information from an alternative perspective.

*A parent thanked one teacher for: "finally making her daughter think".*

Parents were generally supportive of the tool of Multiple Intelligence. They could understand the concept and could see the enthusiasm for it in their children. The only concern expressed by parents was that the Multiple Intelligence technique would not be used by all teachers or would just be a "one-shot" deal.

## TEACHER

Teacher questionnaires were used to determine the commitment of individual team members to continue using the strategies.

*Multiple Intelligence is so integral in our team goal. If students are given this info and are encouraged to use it and taught how to apply it for themselves in a variety of learning situations, then they would be empowered to adapt for themselves.*

*High School E.L.A. teacher*

# Lessons Learned and Reflections Made

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## CHECKING OUR PROGRESS

It was important to determine whether teachers were still moving in the proper direction. Were we actually more willing to continue trying to implement adaptive strategies? Questionnaires and our journals helped to document changes in researchers' thinking.

*We still have a ways to go so that students will be able to know all the ways they could "adapt" their education so that they might learn better. They will have to be educated in all the "tools" they can use before they will think to "adapt" for themselves.*

*Middle Years Researcher*

*However, I'm not sure if young children have a clearly defined learning style so I think it is appropriate to expose them to the different styles and make them aware of how they might feel more comfortable with one, or the other, or as a combination thereof. Understood in all this is that as children become more aware of how they learn, they can take greater responsibility for that learning.*

*Researcher*

*I think in my classroom, students did take an active role in the implementation of the Adaptive Dimension every time they made a choice as to how to best do assignments using their strengths. They used the tools I provided them with, such as Multiple Intelligences, Learning Styles and Bloom's Taxonomy. As I continued to see success with what we were doing, I became more willing to continue implementing the Adaptive Dimension in more of its forms. The increased marks and superior work produced are evidence to the effectiveness of the amount of implementation.*

*Researcher*

# SPEAKING THE SAME LANGUAGE

It was important to establish a core vocabulary that was used by all team members. Labels and descriptors for the tools became the vocabulary. The tools or strategies used by Team Do-Well researchers also became part of the vocabulary of the students and parents. This shared vocabulary provided a vehicle for teachers of all grade levels to discuss the behaviours observed in the students.

## MORE ACTIVE LEARNING ROLES FOR STUDENTS

*I knew that the students' work would still vary. Quality of products increased for everyone, which was important since they can't all be at the same level. But most importantly, the process increased. Students who would have plagiarized an encyclopaedia for a traditional research paper did amazing projects in comparison.*

*Researcher*

Students responded overwhelmingly to opportunities to accept responsibility for their learning, demonstrating time and time again a desire to show just how much effort they were willing to give teachers. Given the chance, students will take more active roles in meeting their learning needs.

Students made their own proposals for assignments to demonstrate specific criteria indicated by the teacher.

*I propose that I will take three different songs and prove that they are really poems. To do this I will do a poetry appreciation for each poem/song. This will demonstrate my knowledge of the poetry that we studied. To demonstrate my understanding of the essays we read I will prove the thesis of "Classroom Without Walls" using the songs in the poetry section. For the short story section I will take one of the songs I choose and write a short story that will show the origination of the idea for the song.*

*In this project I will cover three areas of the Bloom's Taxonomy.*

- 1. Application – of concepts and principles to a new situation*
- 2. Analysis – of the three parts of Canadian literature*
- 3. Synthesis – put the three elements of Canadian literature into a new idea with a new base: Music*

*A Grade 12 Student*

# TEACHERS AS FACILITATORS OF LEARNING

*The Adaptive Dimension is a way for students to adapt their learning to enable them to learn more effectively. Teachers are facilitators. I see it as more of a student initiated response to learning as each child needs to learn how to adapt and capitalize on their strengths.*

*Researcher*

Teachers within Team Do-Well began watching students as they learned. Individual responses were examined to see what the response revealed about the unique method students used to learn. Teachers started looking for student strengths and incorporated ways for students to use those strengths within lessons and assignments. Team members began to feel more comfortable when students responded in different ways. Students were allowed to make changes in relation to their physical position in the room choosing to sit on the floor or in their desk. Students were allowed to move to the hallway to work more quietly. Students could take notes using words and others were free to make maps, charts or draw pictures to illustrate various concepts.

# ENCOURAGEMENT FOR STUDENTS TO MAKE THEIR OWN ACCOMMODATIONS

Grade eight English students noted:

*These strategies can work in other classes but you just have to try.*

*I've always known what I liked but just haven't been allowed to use it cause let's say in some class I'm doodling to help remember. I get in trouble for that.*

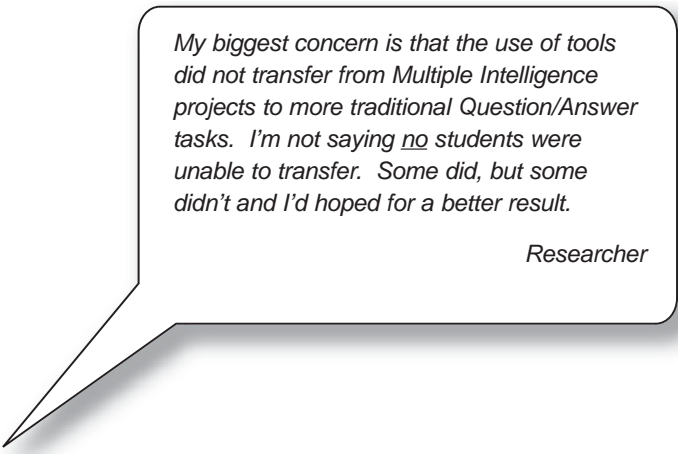
*I use a bunch of smarts because English is just not one smart.*

Other teachers noticed the changes. In one social studies class, a teacher who was not a team member had given students the opportunity to make choices to demonstrate understanding of a concept. He stated that students had made some interesting assignment proposals and worked far harder on their proposals than they had previously worked on other more traditional assignments. Students were able to demonstrate their knowledge of governments in ways that amazed the teacher.

In other cases, however, in which teachers did not make a conscious attempt to allow students to make choices or did not encourage them to make choices, students themselves did not try to do so. They followed the status quo.

Even though students generally did not ask for more choice, they still demonstrated increased performance in other subject areas. At the end of the school year, when teachers were nominating students to be recognized on awards night for the most improvement in grade eight, only students who had had several teachers involved in the research project were nominated for most improved students.

The researchers still hoped for more transfer across subjects and more obvious use of the adaptive dimension by other teachers. Upon reflection, teachers' leadership in sharing responsibility for the Adaptive Dimension was significant.



*My biggest concern is that the use of tools did not transfer from Multiple Intelligence projects to more traditional Question/Answer tasks. I'm not saying no students were unable to transfer. Some did, but some didn't and I'd hoped for a better result.*

*Researcher*

Some factors were identified that may contribute to minimal transfer:

- Teachers who are uncomfortable with allowing a great deal of student choice may unknowingly restrict the options explored by students for demonstration of information.
- Students may feel uncomfortable veering from the traditional road.
- The choice provided is not always genuine.
- Students need more time to feel comfortable with the various strategies and language. One year is not enough.
- All teachers need to use the same vocabulary so students can see consistency from class to class and begin the transfer and generalization process.

# TEACHING FOR THE TRANSFER OF THE STRATEGIES

“Transfer” is a concept in itself. As teachers, we need to develop strategies to teach this concept. Even though the tools were rewarding for students, the energy and enthusiasm they felt in sharing of responsibility for the Adaptive Dimension was not enough for all students to transfer strategies to other classes automatically. Vocabulary would seem to be an important tool in the technique of transfer since some students were able to transfer the use of the tools to other classes without being able to state specifically which strategies or tools they were using.

*Many students in middle years were not comfortable with taking their own notes or varying the notes given by the teacher. If the model used a semantic webbing technique then students followed suit. When no model was provided, some students used drawings to exemplify concepts. This came later in the year and students had to be reminded to use different strategies. Mostly students with serious reading difficulties used these. The notes written by the students to explain their pictures were far more than the student would have normally written without the visuals. The students were also entirely involved in the process of making chapter notes for the story. I didn't believe the students were actively involved in the assignment and was thrilled when I asked to see their chapter notes. Where there may have been only a partial page in the past, some students had “drawn” several detailed drawings of chapter events. These notes covered several pages. There was also transfer to the test, which was the primary reason for taking notes. Students were evaluated on another teacher's classroom test on the novel. The lowest mark in the class was in the sixties. Students had not studied for the test, but wrote it based on their understanding of the novel. Significant!!!*

*E.L.A. teacher*

# TEACHING HIGH QUALITY WORK AND SELF-EVALUATION ACROSS ALL GRADE LEVELS

*Comment about grade one students:*

*Students were asked to define standards required for quality work for their journal writing. As a class they were able to identify 15 points they felt were indicators of success. Students were taught to check their work against these points. They could also check other student's work and give suggestions for improvement to each other. When students presented work to their teacher they could respond to the question of whether the material represented quality work. Students could tell what they would improve on during the next attempt.*

In the revised edition of *The Quality School Teacher*, William Glasser stresses the importance of self-evaluation to the development of high quality work. Attempting to capitalize on Glasser's views, self-evaluation strategies were taught to and used by students from kindergarten to grade 12. It was interesting to note the

range of responses and skill levels across the grades. As students progressed in age, evaluation techniques became more sophisticated. Students proposed their own projects to demonstrate a specified list of criteria and defended their work and efforts. Student participation in this reflection process was enthusiastic and quite reliable; students' evaluations of their work were remarkably close to the teacher evaluations in most instances. It appears that high quality work and self-evaluation can be taught across all grade levels.

*Students at the secondary level were able to propose their own assignments and evaluate their work. Peer comments indicated that other students did not "buy" complaints about inferior work. Students initially tried to suggest that the teacher was at fault in regards to the quality of assignment handed in, but other students quickly pointed out that the onus was on the "owner" of the assignment and not the teacher. This indicates a major "shift" in responsibility for quality work.*

*Secondary Researcher*

# MAKING MORE HAPPEN BY SHARING RESPONSIBILITY

Students overwhelmingly accepted responsibility for their learning and demonstrated time and time again, a desire to show just how much effort they were willing to give teachers.

*I get to be more independent because of the choices.*

*Grade Nine Student*

Comment from grade eight English student survey:

*I am not happy with my mark in English because I have been putting things to the last minute and could have done a better job on them.*

Students took great pride in the work presented and accepted responsibility for work that they felt was less than their best. Often students would state they were disappointed with an assignment and knew how they could improve their work, given the skills or proper materials.

*I had a student say things are different. He used to be pushed "along no matter what he did." Now he's responsible. The implications being now he is expected to produce some form of work indicating understanding.*

*Secondary Teacher*

# INCREASED QUALITY OF STUDENT WORK

Typically when students are given a traditional assignment, most comply. However when students were allowed to create the assignment, the projects they suggested required far more work than teachers initially thought students would be likely to undertake. This phenomenon was seen from grade one to grade twelve. Students knew they had done high quality work and wanted affirmation from teachers, actually seeking them out to physically hand over their work.

*One of my students looked over my carefully crafted suggestions and pronounced them all boring. He had a better idea of what he would like to do to demonstrate understanding. His proposal met the requirements and his quality of work was better than anything he had done before. When it came time to hand in the assignment, the student made an extra effort to locate me in the building. That episode caused me to always offer the option of allowing students to propose their own project to demonstrate the specific criteria. This was also used with students in division IV.*

*Researcher*

# FEWER “TURNED OFF” STUDENTS

The commitment by students to demonstrate understanding of classroom concepts resulted in very labour intensive, high quality work. Students in the middle years and high school did not appear to be “turned off” learning.

*All these stations were the best because they were challenging and fun and you learned lots about different stuff of the Titanic. Thanks for the exciting unit. It was fun and it kept me really busy.*

*Grade Nine Student*

# FEWER DISCIPLINE INCIDENTS AND DECREASED NEED FOR SUPERVISION

Research tells us that the brain seeks stimulation. "Our intrinsic motivation and need to know are two of our greatest gifts. The brain was designed as a meaning maker... The human brain is not passive. ...it aggressively goes after ever more knowledge from the time we are born" (Caine, Caine and Cromwell 1999, p. 91).

Students involved and stimulated by classroom learning activities had less need to look for behaviour diversions. Students were able to remain internally focused on learning and did not need to rely on an external locus of control. Discipline incidents decreased, and students needed less supervision while completing work.

*My English class has just finished completing a very "exciting" paper-pencil exercise. One of the teachers from across the hall wonders what my secret is as she has never heard this class so quiet.*

*...throughout the work periods I only had to "encourage" one team to get working to meet their daily goals.*

*Researcher*

*Started reading the novel; absolute silence in the classroom. Students who have difficulty reading were told they could read with a partner. No one chose to do so. One student folded a piece of paper to put under the line of text to keep place. Another student used his finger to keep place as reading. No sound even after I left classroom and returned.*

*Researcher*

# ASSIGNMENTS HANDED IN ON TIME WITH VERY LITTLE PROMPTING

In one grade eight classroom, throughout an entire year of English, only three assignments were handed in late. Students took great pride in their work and were anxious for the teacher to see the results of their efforts. In a grade five classroom, after an assignment had been given, a normally reluctant student had completed the preliminary discovery work and written most of his puppet play the same day the assignment had been given. It was uncharacteristic for this student to complete any assignment before the due date.

Results were similar in a grade 12 classroom. One assignment was to be handed in during a professional development day. Several students made extra effort to come to school to hand in assignments on a day when they were not even required to be at school.

When students could not locate their teacher, they made extra efforts to make sure school administrators were aware they had handed in their work.

*C's mom commented on how hard he worked on his assignment. She had thought that the work must be late and was thrilled to discover that he had remembered to do his homework without any prompting from her.*

*Researcher*

# STUDENTS WHO LOOK FORWARD TO ATTENDING CLASS

Even normally reticent students in middle years enjoyed the learning opportunities provided.

*Enjoyed coming to class.*

*This was the best thing I've done since I first started school. Thanx!*

*Grade Nine Students*

*I like all the stations. It made English worthwhile to go to. I would even look forward to English class.*

*Div. III English Student*

# Our Journey Continues

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Team Do-Well continues to try to implement the strategies and techniques explored last year. While team members are at different points in their journey, many teachers proclaim they will never go back to their former view that teaching and learning are primarily the teacher's responsibility.

Teachers continue to meet for joint planning of units of study that have a constant focus on providing **genuine choice** for students. Planning takes place during prep time and after school. Team members have also identified areas that they would like to explore further in an effort to return responsibility to students, such as assessment through rubrics or increased use of Bloom's Taxonomy. Although members of the original team are now teaching in other schools in the division, new staff members have expressed an interest in learning more about the theory of multiple intelligences and are trying to introduce alternative strategies into their teaching.

# The Last Word

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Our research question was:

If a model is developed whereby teachers and students take an active role in the implementation of the Adaptive Dimension, would it make a difference to:

- 1) teachers' willingness to implement?
- 2) the effectiveness of the Adaptive Dimension?

Simply put, the answer is:

Yes, on both accounts. In this project, teachers were more willing to implement the Adaptive Dimension because they had concrete evidence of its effectiveness when the responsibility was shared.

# Recommendations

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## PROVINCIALY

- 1. Saskatchewan Education should capitalize on the opportunity to promote the use of these tools within curriculum guides.**

Each curriculum guide contains a specific section reminding teachers of their responsibility to make use of the Adaptive Dimension in their classrooms. The section speaks in general terms of using a number of traditional adaptations; however, the onus remains on teachers to make choices about learning for students. If suggested uses of a variety of Team Do-well's tools were coupled with an explanation of "shifting" the onus from teacher responsibility to shared responsibility, it might assist teachers to begin gradually making this paradigm shift. The Adaptive Dimension section of the curriculum could be used to stretch teachers' thinking about classroom responsibilities rather than serving as an additional reminder that teachers are expected to be able to interpret all parts of the curriculum for all students.

- 2. Teachers need to understand and apply current brain research.**

Research on brain based learning continues to accumulate and should become an essential component of teacher training at the university level. Practicing teachers need to be encouraged to become knowledgeable about current research supplying specific information that helps to fill the gap between teachers' observations of student behaviours and interpretation of these behaviours. All teaching should be purposeful. Teachers' utilization of brain and learning research can turn the use of favorite teaching techniques from happenstance into the prescriptive and selected application of specific strategies.

## PROFESSIONALLY

- 1. Teachers need to receive professional support as they continue to experiment with application of this research.**

Support through organizations such as the Dr. Stirling McDowell Foundation and personal school-based support are essential to encourage teachers to transfer research into applicable classroom information. Teachers need time and encouragement to study various instructional strategies and techniques in their efforts to determine best practice and to incorporate this knowledge into their daily teaching repertoire. Teachers are taking risks as well as their students. Peers, school-based administrators and others must support them as they experiment.

**2. Time to develop the choices is critical.**

Even for committed team members, teacher workload became a significant factor in teachers' willingness to develop and implement choices in student assignments. Teachers expressed concern as to whether they would have the time to develop genuine choices as workloads and the number of new curricula increased.

**3. Teachers need to continue the practice of talking about teaching and learning with each other.**

Teaching must be purposeful. With increasing demands on classroom professionals, frustration occurs. Our clients are changing. Our world is experiencing an explosion of information. Teachers feel pressure to teach their students to learn more information more quickly. Improving the learning process so that students can take control of their own learning may help to reduce frustration for both parties.

**4. Further research into the specific process of transfer is needed.**

What role does the teacher play in enhancing transfer? What is the process through which students feel comfortable enough to begin to implement a strategy different from the teachers', for example, an alternative note-taking strategy? What role does vocabulary play in the process of transfer? Do students need to be able to articulate names of the strategies before they implement transfer or is a basic understanding of the workings of specific tools enough to be able to use them in classrooms?

## LOCALLY

**1. Students and teachers need more than just one year to learn and understand how the tools or strategies can effectively make a difference in the classroom.**

**2. Team Do-Well members need to continue to talk with teachers about their successes and encourage other colleagues to join their journey.**

# Appendix A

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## WALKING IN THE RESEARCHERS' SHOES

“Students can identify strengths in other students and taught researchers how accepting they were of differences among themselves. After listening to one child dictate a story to the teacher, when his turn came he said he wanted his story to be like the other child’s because that child was really word smart. That was okay because this child knew he was art smart.”

Elementary Researcher

“The main challenge I found this year was to ensure that I provided my students with the necessary information to enable them to be responsible learners. I also found this most rewarding and exciting. After years of teaching there is still so much to learn.”

Elementary Researcher

“I liked having all the selections of things we did. Yes, choices are important, because we got to do what suited our intelligences best and practice our other ones.”

Middle Years Student

“In the past I have discussed responsibility and choices but this year those concepts were backed up with an awareness of what it took to do the job.”

Elementary Researcher

“When I plan units and lessons, I make sure that I touch on a method of input for all modalities. I give choice in the way students can demonstrate their understanding of a concept. I expect students to respond to my assignments in a variety of ways. I look for ways to include every student. I do not feel I have done my job unless I teach in this manner. Whereas, I may have done this from time to time before, it was not an expectation for most days. If this is the adaptive dimension, then I am not only willing to do this, it is the standard by which I judge my teaching.”

Elementary Researcher

“I guess what I am trying to get across is that you can adapt anything but it has to fit what your objectives are. The main thing I am finding is relevancy to what you are teaching. You should always adapt, but it needs logic and that is what I am learning.”

Secondary Researcher

“All in all, I feel that everything has gone quite well. Since I started this, I have seen improvements in the students’ success and behaviour. I have also noticed how the students have been enjoying the class. They look forward to what we will do, and also they have told me that they have enjoyed this class and like me coming up with new things....Realize it is possible to adapt but it is difficult for every situation and takes time.”

Middle Years and Secondary Researcher

“I have also found that after every meeting, and as I looked through the research, a lot of what I did, and I still am (doing) is ingrained in me. It is something that once you do it, sticks with you.”

Middle Years and Secondary Researcher

“I really don’t know if our question can be answered affirmatively. I do know that my students have many more strategies at their disposal. I will now always incorporate Multiple Intelligences in my planning.”

Elementary Researcher

“A lot of parents commented on how school had changed since they were kids but they liked the changes they were seeing. They couldn’t remember school being so much fun.”

Elementary Researcher

“It was a great year and has strongly influenced how I am in the classroom. By giving children the power to make choices and allow them to be responsible for their learning and behaviour, empowers them to be the best they chose to be...From our experience it shows that when the students are actively involved in making choices about their learning it results in greater success academically and personally.”

Elementary Researcher

“This is so important and has really sparked my teaching. It finally makes sense to give all the tools we have to the students. If you teach them how to learn, they can learn anything....I also believe it is important for universities (where teachers are trained) to focus more on the practical uses of the adaptive dimension – it is INCLUSIVE, not exclusive. From talking with other teachers, some firmly believe adapting is cheating. We need to de-mystify the term and offer viable solutions to implementation. Some of those will include what we’ve done this year.”

Middle Years and Secondary Researcher

“The whole adaptive dimension and multiple intelligence theory provides justification for many of the practices that I’ve been doing, e.g. free choice, learning centers, memory clues. It helps me to help children focus on their strengths. I take more notice of the ways that actions and sounds as well as visual images help children remember abstract images or ideas.”

Elementary Researcher

“I think Team Do-Well has opened the door for teachers to feel more confident about the students making choices, allowing them more freedom to learn in ways that are helpful to each individual. As well there is a feeling that they can give students more freedom and ownership for their own learning.”

Elementary Researcher

“Adaptations don’t have to be lowered, just different. I have a better idea how to apply objectives to choices. It made my students’ understanding of objectives better by using the Adaptive Dimension.”

Middle Years and Secondary Researcher

“We are finding ways to make teachers excited about using the adaptive dimension and they are more willing to adapt. We are encouraging students to adapt by giving them choice, but I think we still have more work to do in this area. We know that if teachers and students are willing to adapt, the ‘Adaptive Dimension’ will be very effective.”

Elementary and Middle Years Researcher

“The adaptive dimension is not for ‘special needs’ learners – it is for everyone, including teachers. I understand that I can teach the students to use this adaptive dimension. This gives them power.”

Secondary Researcher

# Appendix B

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## TEACHER SURVEY

November 8, 1999

Last year you were a part of the Team Do-Well research study group that looked at the following question:

If an “Adaptive Dimension” model is developed whereby teachers and students take an active role in its implementation would it make a difference to:

- 1) teachers’ willingness to implement?
- 2) the effectiveness of the Adaptive Dimension?

As I write the report I find I still have a number of outstanding questions. I would appreciate you taking the time to complete this survey and provide me with additional information.

1. What understanding do you have of the “Adaptive Dimension”?
2. How has your understanding of the “Adaptive Dimension” changed?
3. How has your participation in the research question changed your teaching?
4. Are you using any of the techniques this year that you learned about during the research? If so please indicate.
5. What were the strengths or highlights of last year’s study?
6. What are the limitations of last year’s study?
7. Do you notice any attempts by the students to make changes to their work?
8. Do you see any difference in students who may have had teachers who were part of last year’s research question? Please indicate.
9. Is there anything else you want to tell me about regarding the study?

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