

**ENHANCING CLASSROOM INSTRUCTION  
THROUGH PROFESSIONAL DEVELOPMENT**

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## Abstract

This study was initiated as a school-wide professional development project with the primary focus on "improved classroom instruction". The project was conducted during the 1993-1994 school year at Tilley School. The teaching staff examined, in detail, "Twenty Seven Methods" to improve classroom instruction. An action research approach was employed to analyze and document the results as teachers experimented with various methods in their classrooms over the ten month period. The teachers shared and discussed these experiences at P.D. sessions held every second Wednesday of each month. The researcher's own efforts to improve classroom instruction by examining learning styles and introducing various techniques into her classroom were documented through personal observations and reflections. Questionnaires were distributed to all teacher participants for an overall evaluation of the P.D. project. Students from different grade levels also responded to questionnaires, in an attempt by the researcher to gain knowledge from students' perceptions of the project.

The data tabulated from the teacher questionnaires indicated strong support for the sharing and collegiality that occurred during P.D. sessions. Examining one's teaching methodologies in the light of student learning preferences and changing curricula is a valuable experience. The results support the vital role

professional development plays in enhancing teacher development.

Student results indicate there is a need for further development of kinesthetic learning styles for students. Students also want more input into their learning outcomes. The ideas presented by the students are very insightful and useful for determining future P.D. activities in the areas studied.

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## INTRODUCTION

The current focus of researchers and policy-makers, according to Ron Brandt's "The Curriculum Connection" (1993), is to have students learning more to prepare them to compete in the emerging information-based global economy (Jonasson, 1993). Performance standards and changing curricula are the beginning stages of efforts to raise the levels of student learning beyond present standards. These higher levels can be achieved only by changing the conditions that determine how well students learn. One condition now in the forefront is a powerful curriculum that will meet our needs in a technological era. Students need to be challenged with experiences that allow for inquiry, provoke curiosity and questioning, spark the imagination, and develop a deep understanding for application to society.

High achievement requires high quality curriculum, and high quality curriculum requires quality instruction. Teachers will face their greatest challenge yet in their attempts to make essential connections between achievement, curriculum, and instruction. They will have to examine their present teaching methodologies to see if classroom instruction 'measures up' to the new goals of new curricula. Changes will be necessary and can occur if those who teach are engaged more frequently in professional development and given the time and resources for

careful planning and purposeful implementation. If students are to achieve higher standards, teachers must be provided with the tools to turn their best plans into successful learning experiences.

### **Project Goal**

The main goal of this creative project was to plan, implement and assess the impact of my own efforts to improve instruction in my classroom and school so that I could be more prepared to meet the challenges that are currently confronting me as a professional. As a secondary goal, I wanted to see if other members of the staff could be encouraged to engage more fully in P.D. The questions that I chose to examine, discuss, and focus on were:

*How can teachers' instruction make a difference?*

*Are some Instructional Methods more effective than others?*

### **Method**

The staff of Tilley School met the second Wednesday of each month for a half day of professional development. This time was utilized for development of a school-wide program aimed at improving classroom instruction. In the first meetings the philosophy behind this professional development was introduced, and teachers developed their own profile for learning through a series of learning style questions (Appendix A ). Effectiveness of schools as a subject of

research and publication was also examined and discussed. The above questions listed under "Project Goal" were discussed and evaluated on an on-going basis throughout the study.

The teaching staff examined and discussed 27 ways to improve classroom instruction throughout the 10 month period.

Note: This material is derived in large part from the text "Twenty Seven Ways to Improve Classroom Instruction" (1993) by Philips & Gibbons, EduServ, Vancouver.

Teacher were encouraged to experiment with new teaching methodologies in their classrooms, to gather input from students, and to reflect upon the success (or failure) of various techniques. Sharing with other teachers by discussing their experiences or having teachers visit each other's classrooms was encouraged on a voluntary basis. The study occurred in three phases over the school year:

1. Planning stages, introduction of material, and teacher reflections (Appendix A)
2. Implementing new methods in classrooms, reflecting, and sharing experiences
3. Response to questionnaires; project evaluation

As the teacher primarily responsible for encouraging the staff to undertake this P.D. initiative and as the researcher in this study, I adopted a participant-observer role in my dealings with the rest of the staff. In my own classroom I

employed an action research approach identifying questions of importance and pursuing answers to those questions, often in a trial-and-error fashion.

The following Methods are taken directly from "Twenty Seven Ways to Improve Classroom Instruction" (1993), by Philips & Gibbons, and provided the basic direction for Tilley School staff's efforts at improvement and change for the 1993-94 school year.

### **27 Instructional Methods**

- METHOD 1: Clarify goals and expectations before beginning instruction
- METHOD 2: Create a vision of excellence: a mental picture of competence in the mind of the learner
- METHOD 3: Teach for transfer and enduring effect as a way of increasing student motivation
- METHOD 4: Personalize instruction for each student by accommodating learner uniqueness
- METHOD 5: Secure a written plan from students
- METHOD 6: Identify and develop some area of expertise for each student
- METHOD 7: Create classroom options in methodology
- METHOD 8: Utilize peer tutoring and cross-age tutoring
- METHOD 9: Organize your class in diverse, cooperative groups

- METHOD 10: Assist students in designing a plan to ensure failure
- METHOD 11: Create a life experience integrating academic knowledge and skills into the performance
- METHOD 12: Include parents as partners and the home as an educating institution
- METHOD 13: Use the challenge activity as a way of applying new learning to experience
- METHOD 14: Teach students to design and direct their own learning
- METHOD 15: Create a classroom climate conducive to the teachable moment
- METHOD 16: Use classroom activities that reflect new brain research
- METHOD 17: Raise expectations by using the power of self-fulfilling prophecy
- METHOD 18: Utilize the power of multiple modality and purposeful redundancy
- METHOD 19: Provide observation of student performance and coaching to correct-in-flight
- METHOD 20: Provide evaluation options to personalize ways for students to demonstrate mastery
- METHOD 21: Model the attitudes and performance you desire of students and locate other adult mentors
- METHOD 22: Teach students the process skills for higher level thinking and learning how to learn

METHOD 23: Increase time on task: increasing the engaged time of students

METHOD 24: Identify rich community resources to enhance classroom activities

METHOD 25: Make the pursuit of excellence attractive by rewarding improvement

METHOD 26: Balance relationship and task

METHOD 27: Use technology to increase student learning

## MY ATTEMPTS TO IMPLEMENT NEW METHODS IN MY CLASSROOM

### Here's How It Happened

The Tilley School Grade 6 class comprised 17 students in September 1993, a diverse group of students who were very socially orientated. By this I mean they loved to visit, chat and discuss, but rarely seemed to be on task as a whole. This created a problem in part because of the way the classroom was structured.

For three years I had very successfully used tables of four in groupings of various types throughout the year. I promoted cooperative learning, respect for peers, and the ability to get along with members of the group.

With this class, by October, I was frustrated to the point of considering trading my tables for desks. The thought scared me to death; I felt that I would be robbed of my preferred style of teaching. All my planning, units of work that involved group discussion, projects, math activities and centres would have to be modified. More individual work seemed to be the solution. I felt that the style of learning of these students was so different from my style of teaching

that we would have to find a compromise, yet my stubbornness created a further obstacle.

### Class Meetings

I decided to have a "class meeting" to discuss the situation. In this form of class meeting everyone sits around in a circle at the back of the room to discuss problems, complaints, or situations that may not be acceptable. I explained to the class that I was not happy with how the first month of school had progressed. I told them again about my expectations for behaviour, group work, and cooperation at their tables. I had been working hard at modelling and rewarding this, but it seemed to be unimportant to them. I then told them that I thought the alternatives would have to be a). stricter discipline for uncooperative members and those not on task, b). no student choice in table groups, or c). a complete switch to desks. I told the group the latter choice was least acceptable to me, as I felt strongly about not wanting to give up tables. Students took turns giving ideas and sharing their thoughts. The key points they raised were:

1. talkative girls should not be allowed in the same group
2. the teacher should not have to give up what she prefers
3. students need to learn to be more cooperative and to get along. (This is when I found out two students have never been able to get along since kindergarten.)

4. the class should set up punishments for those who are causing the disruptions

As a group, we agreed on these points and set up group consequences for students who were uncooperative. We decided that removal from the group until they were more willing to meet group expectations should be the major consequence. We left it at that. New table groups were selected by the teacher with plans to begin the new ideas immediately.

I felt that perhaps I had expected too much from them. Maybe a month was not enough time to adapt to this new environment (no other teachers used tables). But the time was right to make changes, before bad habits formed and became permanent.

By the end of the next week, things were just the way I wanted them. Students were cooperative, making group decisions fairly, staying on task much better (some groups still had to lose participation marks to improve their time on task and keep their talking at an acceptable level of quietness), and really learning to adjust to group work and cooperation. They were like a different class!

The biggest lesson here for me was to remember that my teaching style has to be compatible with the learning styles of my class if the students are to have a successful start. Also, I have to be willing to involve the students in discussion of the problems, for they really are willing to work with me when I include them. If my expectations are not too high, and the students know what will happen if they do not meet the accepted standards, then the environment becomes more manageable. I have used class meetings before, but it reminded me, early in the year, that the discussion group approach really works. Students need to be a part of the decision making. I really think it helps them to have ownership and accept responsibility for their own roles. Class meetings have become a very important part of my classroom for dealing with behaviour problems and discipline. [ This fits in with Method 15 - Create a Classroom Climate Conducive to the Teachable Moment.]

### Cooperative Learning Groups

For what should be obvious reasons by now I also like to use cooperative learning. Students need to have a positive learning environment. I have seen too many negative classrooms where feelings like fear, distrust, futility, and boredom interfere with the learning process. I work extremely hard at promoting a warm, positive environment where students

are free from fear, threat, criticism and negative feelings. There has to be trust, humour, enthusiasm, and mutual respect for students to coexist for seven hours a day, two hundred days of the year. This creates a classroom climate conducive to learning. This desired climate needs to be modelled by the teacher, so I recognize positive behaviour and emotions with verbal recognition and praise. Indicators of a positive classroom climate are shown by students who care and express concern for one another. The students have ownership and are responsible. In order for this to happen the class needs to be included in key decisions such as the plan to improve the climate. So the two really go together hand in hand. Research, such as that done by Howard (1980), shows that classroom climate greatly affects student achievement. I believe that the greatest teaching strategies will be powerless in helping teachers reach goals of learning if the climate is not positive and respectful for both students and teachers.

This perhaps was one of the greatest challenges I had to confront this year with this particular class. Earlier I mentioned the two students who could not get along. This had been going on since kindergarten, I discovered, when trying to solve some minor conflict between the two of them. They really did not know how to be nice to each other. Blatant rudeness describes their behavior towards each other very

accurately. The two could not be in a group together at all. In fact, the further apart they were the better. This was part of the reason September got off on the wrong foot; student A and student B were at the same table to begin the year.

These two students were in a constant power struggle. I'm sure they spent sleepless nights scheming new ways to ruin the next day for each other. Unfortunately, they had the ability to pull other students into their conflicts and, often, two distinct groups resulted. This was not very conducive to cooperative learning.

By early November, things between the two were not improving and by then a third student had been drawn into the struggle. Class meetings were successful for short periods of time, but a suitable environment was still not there for all members.

A physical fight one night after school brought things to a head. I turned the problem over to the vice-principal, and told him I had 15 other students who needed me. The two were given an in-school suspension. They were not permitted to be with the rest of the class at all for one week. They reported to me for their work daily and were assigned to two different parts of the school to work. They had no recesses and were

given different lunch hours. Both sets of parents were in total agreement, and were more than willing to help end this problem. The parents also told us the problem began in kindergarten. I could not believe this kind of behaviour had gone so far without being eliminated; not much wonder I had little success dealing with it on my own. It was like doing battle with a great swordsman using a mere toothpick. Ironically enough, I was to discover later, it was the parents themselves who had added fuel to the fire time and time again with their own arguments and disagreements. Their children were merely their puppets.

The week these two were gone was the best week of the year so far. I soon learned how devastating their negative behaviour had been on the classroom climate. Even the other students commented. I had a class meeting with them to discuss what had happened to students A and B. Most were very glad. I discovered very few students could stand student B. We talked at great lengths about why. They had lots to share and I got a very good picture of what I had been up against. We needed to come up with a plan that would work for everyone. The others were very helpful and some were willing to make "sacrifices" (such as being at the same table as student B) to make things work. A lot of counselling time, hard work, and strict rules were put into action to make the classroom as close to positive as I could get it. The key point I gathered

from all of this was that students and teachers suffer when the climate is not conducive to learning for everyone.

Once an environment suitable for optimal learning has been achieved, teaching strategies and methodologies can be zeroed in on. I wanted to look at the uniqueness of each student in my class, to reach out and make learning a positive experience in my classroom. Often students arrive in Grade 6 with a negative attitude toward school, homework, and the boredom of it all. My aim is to try to make Grade 6 a year to make a difference, to let my students take with them a desire to learn, and a positive attitude, in preparation for Junior High. I am always ready to meet new challenges, study new ideas, experiment with different approaches to learning - to try to become a "Master Teacher", one might say.

#### Ways to Improve My Classroom Instruction

There were several areas I wanted to focus on for the year. One was to improve communication between parents, students, and the teacher, thereby trying to develop more of a home/school partnership.

Another area was to increase the emphasis on accommodating different learning styles, by creating more classroom options and providing a greater variety of

activities from which students could choose. I wanted students to be more actively involved and to have more say or input into their learning.

A third aspect in regard to cooperative groupings was the increased use of peer tutoring or what I coined "class experts". These were the three major areas I wanted to work on for this professional development project.

The last area was designed to allow students to be more involved in the evaluation system. Their input can be very helpful for future planning, especially when a teacher is introducing new programs or methods. As it turned out, I didn't do as much of this as I hoped, so it became more of a minor focus.

#### Communication Books

Simply put, the communication book records what is happening in Grade 6. Students record daily homework, special events, test scores and so on, on special pages provided by the teacher. They also fill in a "Weekly Reflections" sheet which includes all their subject areas. Students record something for each day so by the time the week is over, all subjects are filled in. They comment on what they did, and their feelings, and share this with their parents. This

communicates to the parents all important homework and what goes on in a week at school. The purpose of the communication book is to allow teacher, student, and parents more opportunities to communicate and share the events of the classroom. The teacher also writes in the book (generally positive comments) to the student, or sends notes to the parents, and parents also can include comments, thereby creating a three-way system of communication.

[ This is part of Method 12 - Include Parents as Partners and the Home as an Educating Institution.]

Daily positive conversation about school is needed in the home. The book, *27 Ways to Improve Classroom Instruction*, by Phillips and Gibbons (1993), states that research shows parental involvement with the child's school will increase academic achievement by as much as 35 percent. Positive conversation is the first requirement for success. The communication book helps provide an opportunity for such conversations. By making the students responsible for daily completion and for taking them home each day, teachers create the opportunity for parents to check on homework. Parents are required to sign the book each weekend. They are asked not to sign any books that are not completed. Signing means that parents will look at what is written. In fact, they start looking forward to it, because it allows them to know what is going on at school. Several parents write me notes each week to say "hi" or just to confirm something. Over half write

comments to their child as well. ("Congratulations, on a good Math test", for example). I take the books in on Monday, check them off if signed and completed in the proper manner. Awards such as stickers, pencils, and book marks are given out periodically. This acts as a motivator for students, so they work very hard at remembering to get their books in on Monday.

Parents really are positive about the communication books. Many have told me that they wish all teachers used them. It really helps the students who have organizational problems. It also increases responsibility, and it communicates. One other teacher has also started using communication books.

During parent-teacher interviews I felt it was important for the children to come with their parents. I first started this two years ago, and have continued with the idea. I believe students have the right to know what goes on at parent-teacher interviews so they come in and actually are part of the interview. I ask them questions like, "How do you feel you have progressed this term? Have you met the goals you set?" It becomes a three way communication process again. The students tend to be nervous at first because they don't know what to expect but, by the second interviews, they are very informative, sharing the information in their portfolio very effectively.

I was hoping that by having students come along, they would influence their parents to come in for interviews. I can't honestly say if it has been a factor contributing to the increased number of parents coming in for interviews or not. I do find this a very powerful form of communication. No secrets are held, and I sure do not have to do much of the talking. No other teacher in my school has tried this approach. Some parents have commented that they really like this form of interview.

#### Accommodating Learner Differences

Because of the variety of learning styles I observed and identified in my classroom, I explored the use of some of the strategies that addressed accommodating learner uniqueness. This was a direct attempt on my part to "Personalize Instruction for Each Student by Accommodating Learner Uniqueness" (Method 4).

This does not mean simply individualizing instruction. It means addressing the key variables that make a difference in effective teaching and learning. Time, for example, is one such variable and one aspect of "Time" is being considerate of the fact that students learn at different rates. Allowing the students more time on task when it is needed is important. This was an area that presented difficulty throughout the year

as the amount of time I allocated for activities and projects never seemed to be enough for several students. It became necessary to work this into my different teaching methodologies.

Another variable, just mentioned, is that of "teaching methodologies". Students learn in many different ways so I tried to provide a variety of methods from which students could select when they were doing group project work. Some preferred to work alone; others liked working with a friend who shared the same quality of work; still others liked to be in their cooperative table group with students helping one another.

For regular classroom instruction, the approach used varied with the task: for example, teacher demonstration with the large group; small table group discussion; sharing experiences to the full group from small group brainstorming; independent work for research; student planning of their own experiments in science; or centre activities that included listening and viewing experiences.

Motivation was a variable that required not a lot of additional changes. The positive classroom environment provided students with a positive attitude. My students really liked the challenge of trying new ways of learning.

They appreciated the variety and for the most part loved picking partners or working groups for their tables.

The experiences of being a facilitator for learning provided me the opportunity for personalizing instruction. Moving from group to group, discussing and questioning students' ideas and experiments, allowed me to learn more about how my students were learning. It provided me with more chances to interact, to help students with difficulties, and to be a "guide on the side" rather than a "sage on the stage". The class was involved actively as much as possible.

The following few examples provide evidence of this point:

#### Social 4 and 6

There was lots of group work involving discovering, discussing, and using problem solving strategies to come up with group solutions to problems. As well, there were centre activities that included choices and different modes of learning.

#### Math

I encouraged the use of manipulatives wherever possible so students had direct tactile and kinesthetic involvement, and could discover the concepts through experiencing them. The use of activity cards, games, and free exploration with

manipulatives really helped to address learning styles. This is the whole philosophy behind the new elementary math program. It makes math fun and challenging.

For several units I would give students a pretest in Math. If they could make 90% then I would provide alternative mathematical experiences for these students. During the unit on division I had six students who scored over 90% on their pretest, so they were engaged in problem-solving activities, games, and free exploration during the instruction time for the rest of the unit. They made up one-third of the class so it freed me up to spend more time on individual instruction with those experiencing difficulties. The students also acted as "Math Experts" where they would volunteer to be peer tutors. This provided for more one to one instruction. Some students preferred to work with a peer rather than the teacher.

### Science

I was working on the new program of studies, piloting the Addison-Wesley series. It has a philosophy similar to Math. The students are engaged in active learning, designing experiments, setting up activities from the text, being a part of what they will learn, with lots of free exploration. This subject works very well for varying methodologies and working with different learning styles.

It was with Science that I tried to provide more options for evaluation. Sometimes I would give a class project rather than a test for the final unit evaluation. The project would include higher level thinking such as application of the knowledge learned and synthesis. Also, the style of test I gave was different. For one unit I created a crime and my detectives had to solve it by applying the six methods they used in class during class investigations in criminology.

I would get the class to evaluate the units at the end so I could get feedback as to what worked and what didn't. This provided me with more insight for planning the next unit because student responses were related right back to their learning styles. As well, it provided me with a lot of information about the learners in my classroom. However, I was never able to test them with a formal testing instrument because the one I ordered from the Guidance Centre in Ontario was received but no answer keys were available. They were out of stock still in June. I will begin formal testing as part of my new role as Guidance Counsellor in September.

Other methods that fit into what I have just described are:

Method 7 - Create Classroom Options in Methodology

I strongly feel I am effectively addressing this method.

## Method 9 - Organize Your Class in Diverse, Cooperative Groups

Two of the suggested methods that I tried this year are described briefly in the following outlines:

### STAD - Student Teams - Achievement Divisions

In STAD the teacher teaches concepts while the students work through activities in groups. They then help each other review and study the concepts. Each student is given a quiz. The scores on the quizzes are totalled to make up a team score. These team scores represent improvement scores as compared to past quiz performance. This gives all team members a chance to contribute to the score. This method uses peer tutoring very effectively and cooperation is really high level.

Another technique is called Jigsaw. In jigsaw, students must share information which is read with everyone in the group and class. It works well with research information or learning logs for Science readings, for example. The students are assigned to groups and share a different piece of information within the group. The regular group splits up and the children form "expert groups" made up of one student from each regular group. They discuss and share the read information, make sure everyone understands, and decide what the main points are. They then go back to the regular groups where each "expert" in turn teaches the concepts to

his/her group. The groups summarize the material in learning logs for study purposes. This method enhances cooperation, listening skills, and trust, and the ability to stay on task increases.

A third technique for cooperative group work, one that I used last year, is group investigation. This has been prescribed particularly for Science investigations and problem solving strategies in Social Studies. It provides opportunities for the development of organizational skills as students have to decide who will do what to finish the task. Communication skills are essential, as is group cooperation.

**Method 11 - Create a Life Experience Integrating Academic  
Knowledge and Skills into the Performance.**

This is the whole spirit behind the new Math and Science Program. The more students can apply new concepts to situations in their world, the better they will be able to retain them. My students learn what they are actively involved in. All students need these experiences.

**Method 13 - Use the Challenge Activity as a Way of Applying  
New Learning to Experience**

Method 11 and 13 really go together. A challenge activity is one that is unfamiliar or a first time activity for a learner. It may be uncomfortable due to embarrassment

or fear and it involves risks. Challenge activities require students to go a step further, to take a risk to increase their level of performance. I think teachers use this method all the time. We are always challenging our students to go the extra mile. In my classroom, I have a challenge from day one, for all students to do the best they can. I tell them I will accept nothing less than the level at which they are capable of performing. ("Always go for the gold!")

Method 2 - Create A Vision of Excellence: A Mental Picture of  
Competence in the Mind of the Learner

As I challenge my students, I am raising the expectations of what I know they can do with more work and effort. The choice is theirs, but in many cases it improves achievement.

For example, many of my students this year had major problems in spelling, even several of the higher achievers. I set out to remedy the situation by introducing a new program called "Improving Your Spelling". It was a fairly structured program with step by step procedures for being successful. The good spellers were excluded from the program and helped the teacher by proof-reading work by other students. They acted as "spelling experts". Other

students liked their help particularly during practice sessions. All students improved their spelling skills as a result of the three month program. It helped create a vision of excellence and I could see a carry over into their written work, especially journal writing. Several students took this improvement in learning a step further (challenge activity) by taking their daily journal writing home each night and going through their spelling for corrections. They became my spelling stars by June!

#### Method 3 - Teach for Transfer and Enduring Effect as a Way of Increasing Student Motivation

If teachers accept that new facts and knowledge will only be retained if combined with experience, then how we teach new material is extremely important. I use simulations in Health and Social Studies, and integrate drama by role playing; both are excellent ways to teach thinking skills. Relating concepts to real world problem solving can cause students to use higher cognitive thinking. This fits well with the other methodologies described earlier.

#### Method 14 - Teach Students to Design and Direct Their Own Learning

Some of my students had the opportunity to work some of the time during a unit on self-directed activities and

clearly did become more responsible and independent. This method relates back to teaching strategies.

#### Method 6 - Identify and Develop Some Area of Expertise for Each Student

"Class Experts" were used in Math, Spelling, and Journal writing. They were students who did well in these areas (not necessarily the same people for each subject) or who had reached the stage of excellence. One of their important roles was to work with their peers when needed. This strategy was used more closely in conjunction with Method 8.

#### Method 8 - Utilize Peer Tutoring and Cross Age Tutoring

My "class experts" were only engaged with tutoring their own peers. I would like to try some cross age tutoring another time. The peer tutors helped mark journals by proof-reading with the students. Each expert had two or three students to work with. The students who received the help felt the peer work was very beneficial to them. I saw progress in their writing. When it reached an acceptable standard, the student was weaned away from the expert to become more independent. It worked well for harder concepts in Math such as long division. Experts were good for giving clues for problem solving in Math as well. Students

appeared to develop more confidence as problem solvers with a little clue from a friend.

There are other methods from the 27 Methods to Improve Classroom Instruction that overlap and fit in here and there, but these are the main ones that match up with what I was trying to do to improve my teaching strategies. As a last point, I need to mention Method 25 - Make the Pursuit of Excellence Attractive by Rewarding Improvement.

I cannot stress the importance of this enough. The reward doesn't have to be anything more than a non-verbal smile, a compliment, or a pat on the back. Children love to be recognized for their accomplishments, so I try to use that to my advantage! I felt as if I had students "eating out of my hand" when they would improve the quality of their work to win a sticker or a reward. I always used the surprise method where I would just have an in-class awards presentation for spelling, or journal writing, neat work, tidy shelf, returning communication books and so on. It really works to motivate all students.

## OTHER TEACHERS TALK ABOUT THEIR EXPERIENCES

Teacher A

A staff room conversation one day about an interesting Science 20 class caught my attention. I began listening as the teacher related her experiences with some new approaches in her class. I asked her if she would be willing to write her thoughts down for me as part of my project. She said she was not much of a writer, but I could write it down. Accordingly, at the next opportunity, I interviewed her. The following excerpts provide evidence of her reflections upon her teaching experiences.

Interviewer: I understand from your conversation in the staff room that you have had to use some new approaches for teaching the new high school Science program. Can you explain or give an example?

Teacher: The environmental unit for example was more of a research approach, with hard-to-present concepts, so students discovered the information from resource materials. They worked in groups, selecting related topics, then presented their findings to the rest of the class in the form of group presentations. It also was the type of unit that allowed for more group discussions.

Interviewer: Do you see your role in the classroom changing as a result of the course content you now have to teach for

the various Sciences or Biology?

Teacher: Yes, I feel like I am no longer in charge of the teaching.

Interviewer: What type of changes have you had to make?

Teacher: The need to provide for different types of instruction, more group work and discussions, research projects for some topics, stuff like that. Students are more actively involved, and not just when they are doing labs.

Interviewer: Are you enjoying the change?

Teacher: I don't like not being in charge of the teaching. The discussions are interesting but it is hard to keep the Grade 11's on topic. It's hard for me to do this because I'm not use to it, but it is a change.

Interviewer: What kind of feedback are you getting from your students? Do they like the changes?

Teacher: I don't know, why don't you ask them?

Interviewer: I think I will if you don't mind. Thank you for your feedback and your time.

A lot of this teacher's strategies involved using the lab for science investigations or experiments. The concepts and knowledge were presented in the form of overhead notes that were copied during the period. I'm not sure how much was explained or discussed prior to the note copying. They would then use these notes to study for the unit tests. Out of the lab this teacher was a transmitter of knowledge and the new program was causing her to make changes toward becoming more of a facilitator.

From subsequent discussions I learned that the students were enjoying the interaction from group discussions and group presentations, but they did not like the total "you do it approach", and they did not like being totally inactive copying overheads. Most appeared to welcome any changes from the regular routine, but really were not fond of work.

#### Teacher B

One day over lunch I chatted with the high school Math/Chemistry teacher about classroom instruction. He felt that getting the course covered within such tight time constraints allowed him little time to vary from a teacher-directed approach. In order that his students did well on departmentals, he felt caught in a transmission style of teaching except for doing Chemistry labs. The students' performance on departmentals often became the driving force that determined the style of teaching knowledge in the high

school. However, he did feel he was doing more group work in solving problems in both Math and Chemistry. He felt it helped when students could explain a process to other students; it confirmed their understanding of the work.

I did not talk directly to any of his students, but some comments on the Grade 11 and 12 questionnaires (Appendix B) gave some positive responses to the few changes he had made. He had a determined attitude about wanting to work at improving instruction, and I'm sure a lot of reflecting was done throughout the P.D. period.

#### Teacher C

Among other strategies, this teacher also used a form of Mastery Teaching for certain Math classes. This method is a planned process for accommodating learner uniqueness. The teacher makes time adjustments and uses different methods depending on students' learning styles. The Grade 7 class of only twelve students worked well with this approach. Even the weakest students could obtain marks in the 80's at times. Much of the success of this method depends on the teacher/student relationship in the classroom. This teacher is a very caring person and can easily motivate his students, so they work toward mastery learning in a very natural way.

One method worked well with one group of students, while a different approach was needed for the other group, in part because of variations in overall learning styles.

#### Teacher D

The Grade 1 teacher worked very cooperatively with me throughout the whole P.D. period. She was always there to bounce ideas off. She worked with several of the twenty-seven methods to improve her classroom instruction. She was also kind enough to have her Special Needs Aide video a Math class for me. "Method 7 - Create Classroom Options in Methodology" was one of the main areas of focus for this teacher. A more student-centred classroom was one of her goals.

The video shows the students start out with the teacher in a learning circle where she explains the activity through modelling the method, giving all the students a chance to take part. The students are then paired up (stronger and weaker partners) to create number sentences from rolling two cubes. Thus the students were learning by observing and modelling after an expert, as well as through active learning utilizing peer help where needed. The teacher was free to work with the groups on the floor, to assist where needed, and to check the work when completed. These activities show her in a facilitator role.

Teacher D felt that Method 25, Make the Pursuit of Excellence Attractive by Rewarding Improvement, was very successful with one student in particular. He responded very well to the teacher's praise, so he worked harder to please her. Creating a desire in children, at such an early age, to work toward high standards is a challenge for most teachers. The video showed the teacher praising a student's good idea for organizing the number sentences. She acknowledged it and asked her to share it with the class. The praise appeared to motivate other children to follow the model shown by the first student.

Among other things she did, the teacher created a bulletin board in her classroom called "Flying High With Spelling". This was an attempt to create a vision of excellence in her students' minds.

The last method she felt was good to mention was Method 8 - Utilizing Peer Tutoring.

She was working on new desk groupings. When she grouped a brighter student beside a weaker student, there was a natural tendency for them to help each other. The children would even select leaders in their groupings. The teacher felt these were very interesting ideas for Grade one students.

I want to finish this section by mentioning the video taken of my Grade 6 Math class. The video was an attempt to

demonstrate the use of a simple manipulative (a coloured square of paper), to review key concepts in the geometry unit. I used a question/answer technique for the review part. The second portion introduced geometric shapes in particular, the basic building block in origami which can be used to build many geometric shapes. For this segment I taught a small group of "Math Experts" who then were responsible for teaching the rest of the table groups. It was apparent how quickly the students caught on, and how efficiently they worked to perform their tasks. The other students worked cooperatively to learn new tasks. These students clearly learnt by teaching one another. The big challenge was then for all students to make another shape on their own. These shapes were then to be used to build tetrahedrons in the next lesson.

This video showed one very simple use of "Math Experts"; any of the students could have been the experts. It also showed the cooperative learning environment that had been established. There is no doubt in my mind, my students are learning!

## QUESTIONNAIRES

### Staff Perceptions

At this stage of the project, I felt it was very important to gather feedback from the staff members who participated in this P.D. project. Self evaluation and

reflection are important components of any undertaking of this nature. I saw a need for teachers to write their final thoughts down as they reflected, thereby allowing me the opportunity to evaluate the successes (or short-comings) of the project. I also wanted feedback on the learning styles portion of this project to help the P.D. committee make a decision regarding continuation of this topic for 1994/95 P.D. Evaluation of the outcomes are vital for planning future Professional Development activities at the school level.

I drafted the initial questionnaire and presented it to my vice principal for approval. He had worked very closely with me in the planning and implementation stages of the project. Therefore, he shared my interest in a final evaluation of the project. The revised questionnaire has been included (see Appendix B).

The P.D. evaluation was handed out at the end of the June P.D. session. Of the thirteen possible returns, ten were returned by the date due. No attempt was made to pursue those who had not handed them in after the final reminder. This was mainly because it was a very busy time of the year for everyone. Two of the ten that were returned had no comments at all, and one had comments but the "yes or no" response to the questions was not marked in.

## INTERPRETATION OF THE RESULTS

## Staff P.D. Evaluation

The Tilley School teaching staff, eleven teachers and two administrators, were the source of these results. Out of the eleven teachers, one was an ECS teacher who teaches only two full days per week. One other teacher was a half time teacher, and another member was excluded from the final results due to a leave of absence that commenced in April.

## Summary of the Results

## Question 1

Has the information on learning styles and teaching strategies been helpful to you as a classroom teacher?

Yes - 8

No - 1

[1 was not circled for yes or no but comment was positive]

## Comments:

- need to find time to use them now in the classroom
- several ideas were ones thought about but needed extra incentive to actually try, some were ideas not thought of before

- good reminder of methods we were already aware of (2 people)
- length of time spent was too long (2)
- provided multiple ideas for IPP's
- allowed me to consider the different needs of my students, and to evaluate current teaching strategies
- helped me work on my teaching strategies and to realize the potential in each child while helping them work toward it

Nine of the ten teachers responded positively to this question. The single "no" response provided no explanation for the answer. This may simply mean the teacher was aware of the material and therefore saw no value in a refresher course or, perhaps, the teacher was content with his/her performance in the classroom and felt no need to address the idea of instructional improvement.

The comments are interesting and reveal a lot of information. The first comment indicates that this teacher did not engage in trying any of the instructional strategies over the three month period. In fact this could have been one of the people who didn't remember to do the readings or forgot about the June sharing session.

Two people imply that they were well informed of all the

material provided (all twenty-seven methods)! This is hard to conceive but there were many methods that were familiar to a lot of teachers even before we started. The comments were probably positive in the sense that the respondents did not feel the remainder of the material was a waste of their time. These two teachers obviously conferred when completing the questionnaire because all answers were very similar. Both felt that the time frame for coverage was too long. This is a valid point but with all the breaks in the ten month period, it perhaps appeared longer than it really was. Maybe it was not necessary to spend so much time on the methods but doing so created the possibility that more importance would be attached to the purpose behind the P.D. If it had been delivered in a rushed manner, with quick coverage, the message may have been that this was not a matter of high priority. [This speaks to some teachers' expectations of P.D.]

Several people did get interested in the connection between learning styles and teaching styles. That was my prime focus; to see others become empowered with the desire to explore other methods of instruction was very rewarding. The comment, "being provided with extra incentive to try some ideas" is one example that affirms this desire.

## Question 2

Do you feel it is necessary to be familiar with your students' learning styles to deliver affective classroom instruction?

Yes - 9

No - 0

1 not circled

## Comments:

- if not, students can't reach their full potential, it may prevent them from being successful
- our teaching styles already reflect ways to meet all students' needs. We use many ways to cover concepts eg. lecture, discussion, activities, and worksheets. It may be more valuable to students so they can develop better study habits.
- need to know how students learn to effectively teach
- familiarizing yourself with their learning styles contributes to more success in learning
- I've always known about differences in kids. More useful to test kids so they know their learning styles so they can take more responsibility for their learning
- the better you know your students, the better you can reach them; understanding their difficulties can relieve a great deal of frustration

- help us understand why some students respond (or not) to our teaching styles

Ninety percent of the teachers responding agree with the belief that knowing how our students' learn can result in more effective classroom instruction. The comments support this belief. It is interesting to note that one teacher believes that our teaching styles already reflect ways to meet all students' needs (comment 2). If this were the case there would be no need to pursue this area of professional development. Accordingly, we could expect that our schools' results in academic performance would be very high, indicating that all our students were making above an 80% average. The comment also suggests that all of our teachers do this, but I'm not sure how such a statement could be made. I would not be able to tell you much about the classroom next door, let alone all the classes in the school. Perhaps it is a mere assumption. Some teachers like to assume that all teachers are doing a wonderful job of meeting the individual needs of every unique learner, but that is just not reality, especially in Tilley School. In fact the opposite may be more true. The very reason for this topic for this year's P.D. was because the vice-principal was aware of what was going on in classrooms. Although there were good classroom teaching strategies occurring, "learning styles" was not being addressed very effectively, if at all. It was also felt that

too many staff members were sitting in a "comfort zone" and were not trying any new ideas year after year. They were not making any adjustments to try and keep up with the changes in education and modern technology. Part of the reason behind the P.D. initiatives was the belief that lack of effort could lead to stagnation because, all too soon, the methods being over-used can become ineffective, causing student motivation to drop.

Having the students tested so they are aware of their learning styles as one respondent suggested, is an excellent point and something that had been planned for this year. It will definitely happen in the fall when the answer sheets come for scoring. However, the results from the student questionnaires indicate that the majority of student questioned were aware of their preferred learning styles. They may not be accurate but they are certainly aware of how they would prefer to learn. This may not necessarily be the key to getting students to take more responsibility for their learning (comment 5).

If a few teachers experiment more with matching teaching strategies to learning styles, the improvement shown in the students' work might influence more teachers to become interested and involved. That is how some teachers hope more effective classroom instruction will happen in our school.

## Question 3

Do you think that having a knowledge of learning styles will help reduce conflict that may exist in one's classroom?

Yes - 7

No - 2

[1 was not clear on the meaning of conflict]

## Comments:

- Yes, trust me I learned first hand
- Yes, stubbornness, laziness and other attributes we perceive that students have often result from misunderstanding. These ultimately result in a conflict.
- if one method doesn't work the conscientious teacher tries another method, and another, and another. If the conflict remains it's a personality conflict and both have to find some area of mutual respect.
- students will be more successful thus have greater self esteem. This will in fact, reduce conflict.

There was not as much feedback on this question, perhaps because this topic wasn't discussed during P.D., but it is certainly an important point to consider if one class of students create more discipline problems than another. Seven out of ten people were in agreement.

The third comment resulted in a great deal of reflection. Is it really a personality conflict? Maybe the teaching was not accommodating the learner and the teacher only thought it was. Communication between the teacher and the student might resolve the problem, but "finding some area of mutual respect" may be only a temporary solution.

The last comment really sums up the whole purpose of teachers being familiar with the learning styles of students and working toward improved classroom instruction to meet their needs.

#### Question 4

After being introduced to the various learning styles that exist, do you feel your teaching methodologies have been influenced in any way?

Yes - 7

No - 2 feel they were already working to that goal

[1 not circled, comment is not negative]

#### Comments:

- I have become more sensitive to student differences
- the way I teach is influenced mostly by ideas I receive from conferences where ideas are presented with hands on

activities

- I've tried lots of different ideas over the years, but this year I capitalized on a few strategies, rationalized about them, and evaluated their success internally as well as with my students
- it may result in me using a few methodologies I've been hesitant to try just to see if I can reach a few more kids
- I have a much stronger desire to try new things now
- I've been doing what I do ever since my initial training in Scotland when this concept was "all the rage" in the early 60's under a different "label". Hopefully I use a wide variety of teaching strategies to appeal to all kinds of "learners" and hopefully I always have.

Seven out of ten feel they have benefited from this experience, although whether their methodologies change much remains to be seen. The importance of these comments is in showing that reflection by many teachers has taken place. The teachers have looked into their classrooms and have thought about what they do there (see comment 6). Evaluating what we have done and allowing our students to evaluate us is a very frightening but powerful tool. So much can be learned from our students about how we teach.

Comment 4 says, " it may result in me using a few..." comes from the same teacher who said, " Now --- if I can only

find time to use some of these ideas in the classroom!" No real commitment is being made here. If it did not happen during the P.D. period, it probably will not happen at any other time for this teacher.

The second comment doesn't really answer the question. Yes or no was not circled on the sheet. This person seems to imply that he/she is influenced by conferences which present material or methodologies relevant to this teacher's needs. Once again this teacher assumes that experts from a source outside the school will be able to help the students' needs within our school climate.

Most comments reflect a positive attitude and a genuine concern for student differences in learning. I'm just not convinced that methodologies of the 60's are the answer to education in the twenty first century.

#### Question 5

What ongoing follow-up activities will be necessary for future P.D. on learning styles and teaching strategies?

There were 7 out of 10 responses

#### Comments:

- evaluation for learning styles??? (I'm not sure what is

meant here)

- "beats me"
- two suggested sharing what we are doing in our classrooms for five minutes or so at each P.D. session
- three suggested testing students and creating profiles for each individual student
- one person felt a need for evaluation of teacher success at meeting student learning style needs

These results show that six out of the ten people see some form of continuation of this topic for the upcoming year.

Testing all the students from Grade 3 to 12 will be a priority for fall. The testing instrument does not work well for younger students, so their teachers will have to continue to rely on observations to gain useful knowledge of their learning. Student profiles can be kept in the office records for easy reference by all teachers.

Sharing of what is happening in our classrooms will continue to be a very important component of our monthly P.D. The sharing and collegiality that took place was excellent. Most teachers were willing to be collaborative and felt comfortable doing so. This is a very large step for our school's professional development and one to continue.

The constant need for reflection and self-evaluation of ones' practices is another area that was "developed" during this P.D. and will continue to be focused on. Student growth, self-esteem, and improved performance will be good indicators of our classroom success stories to come.

### Student Evaluation Questionnaires

In any type of research, it is important to include all the key components when evaluating and concluding. I did not feel I could validate success or failure without hearing from the students who were directly and indirectly involved in the project. My Grade 6 class was directly involved in the project because we discussed the different strategies I was introducing in the classroom throughout the year. They were to be my main source of feedback for self-evaluation and examination of areas that would need improvement. Their input and ideas would also be very valuable for formulating concluding statements.

The other students in the school were indirectly involved because most of them were unaware that their teachers might be trying new teaching strategies. I hoped the element of the "unknown" could be a useful source of information that could be used for future P.D. considerations as well.

I developed and distributed the questionnaires for

completion to various grades in the school. The Grade 7, 11, and 12 classes were the only grades that were able to complete the questionnaire prior to the end of classes for the June exams. All three grades completed the same questionnaire. The Grade 6 class also evaluated my teaching strategies used as part of this P.D. project. They answered questions of a different nature that dealt with the specific areas that I had pursued.

#### Grade 7 Class Results

##### Question 1

Have you noticed any changes in the way your teachers have instructed any of your classes over the last few months? If yes, give examples.

There were ten students out of twelve who were present to complete the questionnaire. Four students felt they had not noticed any changes in the way their teachers were teaching. Three students commented they were doing more project type work or "hands on" activities rather than the teacher just talking in Social class. One teacher was letting them talk more (this probably refers to students talking while they work on activities), and another student felt there was more alternating between group and solo work. The results seem to be split between no changes by most teachers (Only one teacher

was made reference to), to some attempts to provide more group work and less note taking. The comment, "instead of just writing notes they explain what we're writing", tells a great deal.

There is some question as to whether students would be able to recognize a change in a teacher's strategy but, from my own experience, my students noticed even the slightest changes. They certainly could recognize some new idea like using "experts".

#### Question 2

Have new programs such as Science 10, and 20, with the new course material, provided any new teaching strategies by your teachers? Please explain.

This question did not apply to Grade 7 so it was omitted.

#### Question 3

Have these changes made any difference to you as a learner?

In reply to this question two students had no response, one found it still boring, one replied, "No, I still have the same interest." The other six were more positive:

- one felt more relaxed so that person could learn more
- one felt he/she could learn by sharing with friends
- another student felt he/she could understand better now than when they were just writing it down
- two felt they were more interested
- the last student enjoyed the Social class more

Over half the class felt some changes have taken place but it doesn't sound like much attempt has been made by this Grade's teachers to consider students' learning styles or individual uniqueness.

#### Question 4

What type of a learner do you think you are? Eg. visual, auditory, kinesthetic, a combination of these? Do you like group work or prefer to work independently?

The students had no problem identifying how they felt they learned the best. There were more kinesthetic learners than any other type in this class. A few felt they were a combination of the types, and some liked group work while others preferred to work alone. It will be interesting to see if their view of themselves as learners will be a match when they are tested in the fall. Their choices may have been

based on what subjects they preferred the most. That may be the very reason they like a certain class because it matches the way they prefer to learn.

This class definitely would not do well listening to lectures all the time, or being shown what to do, and watching films may not be as motivating and educational as the teacher hopes. The majority of students want to be able to interact with their peers and to be actively involved in "doing".

#### Question 5

What type of classroom instruction do you enjoy and feel you benefit the most from as a learner?

Most students picked a subject rather than instruction, but perhaps the subject reflects the type of instruction in this case because most selected computer class. "Hands on" seems to be their main interest because they find the class is enjoyable and they get to learn, too.

Math was mentioned twice: one student liked working at his/her own pace while the other liked it because, " you can have some free time and you can leave your desk to get help."

Language was mentioned several times, also. One student

liked the projects they do, one other person liked to do work his/her own way like they sometimes do in Language, and another student did not like Language at all. This person would prefer a different teacher. (This was the same student who was mentioned earlier as finding it boring.)

The answer given by one student really expresses well this child's feelings, " I like to learn from teachers who are full of motivation and enthusiasm." That comment sums up what most students feel about learning, and certainly should reflect the attitude of their teachers.

The impression left is that these students are not totally happy with their program. They feel more should be done to develop their kinesthetic learning styles, for example. That is illustrated by their ranking of Computer Studies as their favourite subject. Social Studies class provides more hands on work, as do the Science labs. Have these teachers been working on improving classroom instruction? Perhaps the teachers have been doing so, but not too much has been observed by these students in their day-to-day learning.

## The Grade 11 Class Results

Sixteen students were present to complete the questionnaires (one absent).

### Question 1

Have you noticed any changes in the way your teachers have instructed any of your classes over the last few months? If yes, give examples.

Ten students answered "no"; they felt there were no noticeable changes in their teachers' instructional methods. Two students did not reply. The other four indicated a variety of answers from "subtle changes", to "writing more essays", to "they have improved and they are more involved and helping." Actually only a few students in this class indicated any significant change. The "more involved and more helping" response may have been a result of it being the last week of classes before exams. So might the response about "more essays"; lots of practice before the students write the exam.

The one teacher who indicated she would need now to only find the time to try some of these methods, teaches this group of students for two subjects this semester. It is very likely that these students had no real changes by teachers to

observe.

## Question 2

Have new programs with new course material provided new teaching strategies? Please explain.

Yes - 8

No - 5

3 neither yes or no

The "yes" students felt there was more applied education (may refer to the environmental studies from the new Science). Comments like too much self-learner, or too much applied and not enough learned are hard to interpret. It may mean the material goes from one extreme to the other. One student said there were more debates and more labs. Yet another commented that we write more instead of doing more labs. The last one felt there was too much essay work compared to knowledge and thinking.

Although eight students felt there were changes in teaching methods as a result of new course material, the comments were not all very positive. Students seem uncertain of the changes with the environmental study and they appear not to have liked self-directed learning, perhaps because

they had to do the work rather than having it presented to them on a silver platter. The negative comments seemed to reflect not liking anything involving more work on their part.

### Question 3

Have these changes made any difference to you as a learner?

Yes - 3

No - 5

7 no answer filled in

1 a little

One student reported, "Yes, I enjoy class more." It looks as if most are not aware of any changes impacting on them as learners, possibly because not much is really happening in their classes in the way of improving instruction.

### Question 4

What type of a learner do you think you are? Eg. visual, auditory, kinesthetic, a combination of these? Do you like group work or do you prefer to work independently?

This class has an extremely large mixture of learners.

Several liked to learn on their own; most felt they are a combination of styles, and a couple answered "auditory and visual". Interestingly, the four students who viewed themselves as poor learners all preferred a combination of learning styles. There could be some connection between the fact that if they are not being taught to all their preferred modalities, they may not be enjoying much success and, thus, they may have low self esteem when viewing themselves as learners.

This group is one that teachers are constantly complaining about. Teachers say they have such a poor attitude toward learning, they are inclined to be lazy, and interact poorly with one another by "cutting" remarks and teasing. None of this is a surprise when the wide range of learning styles is examined. This group would certainly benefit from teaching strategies geared to their learning differences.

#### Question 5

What type of classroom instruction do you enjoy and feel you benefit the most from as a learner?

The type of classroom instruction they feel they benefit the most from is "being actively involved." Ten students answered that they like "doing things" such as labs in Biology

and Chemistry, projects, and computer work. They feel English needs a new approach to make it more interesting, less Shakespeare for example.

Two students prefer Distance Learning courses because they can work at their own pace. The other four have choices that range from watching movies and participating in discussions, to enjoying learning about things that interest them. Some of these students would love to be involved in planning what they learn and how they learn.

It would be interesting to see how they would like to have English taught. I wonder if dramatization of Shakespeare might appeal to them. However, they question the relevancy of learning Shakespeare. Is it knowledge that will make a difference to them for their futures? A very good point. A serious look at the English Program may be worthwhile. Sometimes students can be pretty good judges of what is relevant.

#### Grade 12 Class Results

##### Question 1

Have you noticed any changes in the way your teachers have instructed any of your classes over the last few months? If yes, give examples.

Eight of the eleven students answered "no", they have not noticed any changes. Three students answered yes to the question, and two indicated that a particular teacher was working more with them at their level, explaining things better so they could understand more. This teacher was the one who felt more incentive to try new things as a result of the P.D. experience. The last student mentioned group projects and films as a change, so it appears at least one teacher was working on improving instruction and that teacher's students were able to see the differences.

#### Question 2

Have new programs such as Science 10, and 20, with the new course material, provided any new teaching strategies by your teachers? Please explain.

The Grade 12 class had no new courses, so this question did not apply.

#### Question 3

Have these changes made any difference to you as a learner?

All answered "no" but one. This person felt it was easier to write tests because there was less study with more understanding in class. Four had no response to the question.

The changes were not there in the first place so they cannot make a difference. Only one student felt the difference in teaching affected his/her learning. The P.D. does not appear to be very effective at this level. This was probably due to high school teachers teaching to get finished the course content so departmentals could be written.

#### Question 4

What type of a learner do you think you are? Eg. visual, auditory, kinesthetic, a combination of these? Do you like group work or do you prefer to work independently?

Types of learners - a royal mixture! Most students are a combination of kinesthetic with visual, or kinesthetic with auditory. They like "doing things". A couple of students liked group work while three would rather do independent work. One answered "just auditory"; this student liked the lecture style. Two students felt they could learn more if their needs were met and if teachers would apply material to different ways of learning. That comment is the very reason for presenting this material in our P.D. sessions! One student would like to learn through field trips to experience new things and do less "theory work".

#### Question 5

What type of classroom instruction do you enjoy and feel

you benefit the most from as a learner?

In talking about the type of classroom instruction they enjoyed and benefited most from, students provided excellent feedback. There were too many comments to write down in response to this question. It seems certain these students are very aware of what makes them tick. Most wanted to be involved, to be doing something motivating. Most felt that discussions on interesting topics were good. The majority indicated they got bored and lost interest if they were only listeners. Inactive, passive learning turns them off. Some suggested Social and English are like that, too passive and inactive. These students had lots of great ideas for learning. These need to be shared with the teachers involved because a clear message is being passed on by our high school students.

It was interesting that 90% of the staff felt that knowing learning styles was important for more effective instruction, yet the students comments don't indicate support for this belief being put into practice. Nor did student comments support the contentions of several teachers who felt that they were already teaching in ways that met the needs of various learning styles in their classrooms. Even the Grade 7 students felt very little was being done. If the other classes were surveyed the results would probably not vary too much.

Teachers often believe they are doing wonderful work but, when the students are asked, their answers may provide a very different view of how they are learning what is being taught.

### Grade 6 Class Results

The students in Grade 6 were very aware of the different strategies I had been implementing in the classroom to improve my instruction for the various learning styles. They were given several questions to answer for the purpose of evaluating what had been worked on. A summary of the results follow.

#### Question 1

What did you think about the teaching strategies that were tried, such as using "experts" for Math and journal writing?

Fifteen students handed in a written response to the four questions asked. Four students were absent when this was done. Fifteen out of fifteen students liked the strategies. They felt "experts" were very effective because they could learn more with more one-on-one learning. They also liked to learn from their peers, thus remembering more. They enjoyed the

idea of kids being teachers; it made learning fun and effective. One student liked the teacher's help for marking test corrections in Math. The students felt working with the experts helped improve their marks. In turn, it would probably improve self-esteem and help develop positive feelings toward the learning process and school.

All 15 students identified success and improvement as positive feedback from the use of experts, just the goal I wanted.

#### Question 2

What types of teaching strategies do you prefer as a learner? How do you learn best?

There was a lot of variety in the answers given here:

- the teacher teaching and experts helping
- group work (two people)
- the teacher talking and students listening
- by telling me and showing me
- some group work and some individual
- independent work, or hands on type work
- hands on in Math
- the experiments in Science
- applying what we learned to real life situations because

we learn more.

These last comments seem to have summed it up so beautifully. This was the whole approach to learning that I wanted to see happening, not only in my classroom but in the entire school.

### Question 3

What suggestions can you offer for another time?

Responses include the following:

- experts to help each other study for tests
- no suggestions, I thought it was good
- activities with the spelling, and everyone should get a chance to be an expert
- helping students in spelling
- I liked it
- independent, hands on work
- whole class activity
- more group activities because they are fun and you can discuss your answers
- pretesting in spelling, but less spelling
- outside on hot days to work
- more time for graph pictures

Aren't kids wonderful? They provide so many excellent

ideas. For the most part everyone liked the strategies tried and had few suggestions; the ones given will be very useful for next year. Yes, everyone should have a chance to be an expert. This was a hard area to work on because some students can be experts at fewer things than others. Often they became an expert at feeding pets, or setting up equipment, and so on, rather than an expert of an academic nature.

The student who said, "less spelling", was the best speller in the class and never had to do the work. She didn't do a lot of the extension activities provided for free time, so she may have been bored and less productive than she might have been. Because she was a new student in January and rather introverted, that could have contributed to her indifference.

The student who said, "more independent work", took nearly the whole year to discover that if he worked alone he did much better work and stayed on task. In groups, he visited, wasted time and thus got lower marks. His real learning style came to the surface as he became a more conscientious student and less of a peer follower.

#### Question 4

What kind of learner do you think you are?

There was a wide variety mentioned here again. Lots of students enjoyed kinesthetic, hands on work, and also working in groups. Many felt they were a combination of visual and kinesthetic learners. I became very aware of my diverse group of learners and tried to accommodate as many styles as I could for each lesson. The point to be realized was that there are many different types of learners found in Grades 6,7,11, and 12. This would almost certainly be the case in most grades. If students can be aware of how they learn best, it is time for teachers to become more aware of these differences and work with the students accordingly. This process of collaboration with the students could be one of the keys to success for all students in the learning process.

#### CONCLUSION

As the twenty-first century quickly approaches, teachers will indeed face the challenge of change. Teachers need to constantly self-evaluate, but now, more than ever, they will need to reflect upon and evaluate their present teaching methodologies. If students are to be learning more to compete in an information-based global economy (Schlechty, 1992), then teachers will be required to make this happen. The ability of teachers to give every student a chance to become a successful learner depends in part upon their having a fuller understanding of learning styles. Effective teaching can

result when teachers understand how each and every student in the classroom learns.

Research concerned with identifying the relationship between academic achievement and learning style (see, for example, Dunn & Dunn, 1978) has provided consistent support for the following: (1) students do learn differently from each other; (2) student performances in different subject areas are related to how individuals learn; and (3) when students are taught through the methods each prefers, they do learn more effectively.

So, one major part of the role of teachers is to understand how the student develops and learns, and to facilitate the learning process by providing opportunities for a variety of experiences in the subject areas they teach.

From September 1993 until June 1994, the teachers at Tilley School were actively involved in personal professional development. Learning about the learning styles of students and effective teaching strategies to help meet their learning needs was the prime focus. Many of the staff engaged in trying various strategies in their classrooms in an attempt to improve their classroom instruction. Several felt they were already providing a great deal of variety in their teaching, thereby accommodating the various learning styles in their

classrooms. A few didn't try any suggested methods at all, and may never feel the need to do so. One can conclude that even if teachers receive new knowledge through professional development and agree in principle to the philosophy behind it (as shown in the P.D. evaluation results), it does not guarantee their practice will change. However, all teachers did reflect upon their teaching and its effectiveness and all teachers took part in sharing experiences from their classrooms over the last three or four months.

Student perceptions of any changes occurring in classrooms were very minimal in Grades 7,11, and 12, indicating that teachers were probably not doing much to change their current practice. The student input shows strong evidence to support the need for more active learning experiences in some subject areas. Kinesthetic learners felt their needs were not being accommodated most of the time during learning. If this is the perception of the students, then perhaps more teacher reflection is in order for teachers to help all learners to reach their full potential and succeed in school. So Schlechty's observation may be correct (Schlechty, 1992): schools do not prepare all children to function effectively in the world of ideas, or to be able to think critically and creatively. If this is true, then schools need to make available more opportunities for teachers to work together on problems of their practice (Lampert,

1994).

Lampert (1994) reports, "If teachers had more opportunity to work with one another on their practice, they could develop an understanding about what is important to learn and how to teach it." Through this process, teachers who see an innovation such as teaching to the students' learning styles having a positive impact on their students, might get encouraged to have another look and to become more involved.

The twenty-first century brings with it a need to implement changes in teaching practices to ensure our students will be ready to compete in the world of the future. Sharing of ideas in a supportive, non-critizing collegial environment is an important key to teacher change (Joyce & Showers, 1983).

Professional development is another vital component for promoting teacher change and ensuring student learning in schools (Joyce & Showers, 1988). School jurisdictions need to continue to invest money, while teachers need to continue to invest time and energy in their training and professional development (Jonasson, 1993).

Carl Glickman, cited in Jonasson (1993), has this to say about the role professional development has to play in student success and the improvement of schools.

Education is a human enterprise. The essence of successful instruction and good schools comes from the thoughts and actions of the professionals in the schools. So, if one is to look for a place to improve the quality of education in a school, a sensible place to look at is the continuous education of educators - that is, staff development. (p.309)

So, yes teacher instruction does make a difference. It can mean the difference between success or failure of the students entrusted to our care. Jonasson (1993) believes that, "teachers who practice collaboration and collegiality have a positive effect on student learning because of the significant impact modeling has on student development. A collegial climate strengthens the link between staff development and student learning." What a teacher does really can make all the difference in the world.

There are many effective instructional methods that teachers can use. But teachers need to remember to self-evaluate, reflect on their practice, look through the eyes of their students, and let the students evaluate their teaching strategies. Accommodating learner uniqueness by providing an instructional environment that includes as many of the learning modalities as possible is extremely important.

A teacher who believes that all people can learn using a variety of ways, and who understands learning styles, can offer success to all students (Guild, 1994). For some it will require a change in pedagogy, but many learners will benefit from their efforts. Teachers who are learners model that process to their students and share in their struggles of learning.

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# APPENDIX A

(separate binder)

## APPENDIX B

1993 - 1994 P.D. Evaluation Tilley School

1. Has the information on learning styles and teaching strategies been helpful to you as a classroom teacher?

Yes

No

Comment:

2. Do you feel it is necessary to be familiar with your students' learning styles to deliver effective classroom instruction?

Yes

No

Comment:

3. Do you think that having a knowledge of learning styles will help reduce conflict that may exist in ones classroom?

Yes

No

Comment:

4. After being introduced to the various learning styles that exist, do you feel your teaching methodologies have been influenced in any way?

Yes

No

Explain:

5. What ongoing follow-up activities will be necessary for future P.D. on Learning Styles and teaching strategies?

Thank you!



## Grade 6 Evaluation Questionnaire

Please answer the following questions related to the various teaching strategies that have been used in the classroom this year.

1. What did you think about the teaching strategies that were tried, such as using "experts" for Math and journal writing?
2. What types of teaching strategies do you prefer as a learner? How do you learn best?
3. What suggestions can you offer for another time?
4. What kind of learner do you think you are?