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ABSTRACT

Powerful learning is the premise that the type of education provided for gifted children works well for all children. This long-range study examined the usefulness of elements from a more aggressive approach to powerful learning than the one implicit in the accelerated schools model--specifically a teacher checklist, collegial coaching, reflective teaching, and structured seminars --in assisting teachers to integrate powerful learning theory and practice into their classrooms as their schools transformed themselves into accelerated schools. Study sites were two magnet elementary schools; training and coaching was provided by the authors. The Powerful Learning Checklist, developed in Year 2, consisted of 51 items in 5 categories--classroom, materials, students, curriculum, and teacher--with level of usage rated on a 5-point scale. This checklist also required respondents to identify three strengths and challenges from their classroom. The Powerful Learning Project, initiated in Year 3, involved opportunities for teachers to work together to encourage reflective practices and collegial coaching, record teacher experiences in journals, and attend structured seminars to learn about student-centered, constructivist teaching practices. Evaluations indicated that teachers involved in the project for 18 months were able to articulate powerful learning theory tenets; analysis of idea units in teacher essays suggested richer descriptions of powerful learning over time. The Checklist proved more useful for identifying schoolwide growth than individual change. Identified strengths differentiated the two schools. Many individual challenges identified at the pretest were identified as strengths 4 months later. A progress report completed by teachers included descriptions of sharing classroom activities, benefits of the seminars, and an overall evaluation. (The Powerful Learning Checklist and Characteristics of Powerful Learning are appended. Contains 16 references.) (KDFB)

Creating Powerful Learning Opportunities for All Children:

The Development and Use of a Self-Monitoring Checklist for Teachers

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Creating Powerful Learning Opportunities for All Children:
The Development and Use of a Self-Monitoring Checklist for Teachers

More than a decade ago, The National Commission on Excellence in Education placed a new label on educationally disadvantaged children that prompted the creation of national, state and local reform efforts designed to improve the circumstances of "at-risk" children. Earlier, Edmonds (1979) had already announced that "we can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us." Implied in his assertion is the belief that **all** children can learn, an idea that is redefining traditional notions about teaching and learning and one that is bringing about significant changes in urban education.

The new approaches shatter some long-held beliefs and practices that formerly concentrated on finding out what was wrong with children, providing remediation for them and often slowing down classroom instruction (Allington, 1994). Rather, educators now are being challenged to adopt more progressive and positive practices that include, among others, the following: discovering and building on students' strengths (Gardner, 1994; Levin, 1993); encouraging thinking through questioning and inquiry (Cardellichio, 1995; Harste, 1993); working on prevention and early intervention (Slavin, et al. 1994); engaging all students in active learning activities (Haberman, 1995); building on the experiences children bring to the classroom (Smith, 1995); and, providing opportunities for children to interact socially with one

another and to work together on self-selected projects (Holdaway, 1979; Morrow and Rand, 1994). Such practices value acceleration over remediation as a more effective way to help children catch up and keep up with their more advantaged peers.

The Accelerated Schools Project is a reform model that provides a philosophy as well as a process to create the kind of schools for all children that we would want for our own children. The cornerstone of an accelerated school is the notion of "powerful learning" which is based on the premise that the type of education we provide for gifted children works well for all children (Hopfenberg, Levin, and Associates, 1993). In addition to encompassing the qualities noted above, "powerful learning" is rooted in constructivist learning theory (Brooks and Brooks, 1993) which allows that each individual constructs a unique understanding of the world based on previous knowledge and experience. In a school setting, constructivist practices imply "learning that is active, engaging, and arouses the curiosity of the learner" (Accelerated Schools Newsletter, Spring, 1994, p. 12) and where teachers "look not for what students can repeat, but for what they can generate, demonstrate, and exhibit." (Brooks and Brooks, 1993, p. 16)

Constructivist learning theory also frames the year-long training process that a school staff goes through as it begins to transform itself into an accelerated school. By extension, it undergirds what Levin (1992) refers to as the "big wheel" changes that must occur in order to alter a school's culture and governance structure from one where the power is held by the few into one where empowerment and responsibility

extend to all stakeholders. The internalization of these "big wheel" processes lays the groundwork for "little wheel" changes that simultaneously begin to transform individual classrooms into "powerful learning" environments. Herein, classroom activities and procedures slowly start to mirror the same principles, values, and practices that are beginning to evidence themselves on a much larger scale throughout the entire school.

Therefore, while the provision of "powerful learning" for all children is perhaps the most important and noble goal for an accelerated school to achieve, in our experience as coaches with the Accelerated Schools Project it has been an elusive and slippery concept to convey to teachers. Simply stated, there is much rhetoric to describe "it," some teachers already know how to do "it," and it is one of those things that "you recognize when you see it." So, even though the Accelerated Schools Project provides a participating school a concrete process to follow in order to transform *itself* into an "accelerated school," we have found that the process does not automatically transfer to the classroom level and that many teachers experience difficulty transforming their more traditional teaching environments into places where "powerful learning" occurs on a daily and routine basis. In other words, the "little wheels" sometimes don't begin spinning.

This study was developed around the speculation that teachers involved in the Accelerated Schools Project could benefit from an approach toward powerful learning that was somewhat more aggressive than the tacit one embedded in the accelerated

schools model. It was designed to explore teachers' understanding of powerful learning, to increase their awareness of powerful learning practices, and to gently nudge and encourage them to take the necessary risks to transform their classes into powerful learning environments. The purpose of this study, then, was to devise a way to assist teachers as they integrated of "powerful learning" theory and practices in their classrooms. The research questions guiding this study were: How do teachers describe and define powerful learning? What strengths and challenges do teachers experience as they attempt to increase their use of powerful learning? Does participation in an intervention designed to heighten awareness and use of powerful learning lead to a better understanding of powerful learning theory?

Methodology

The study sites are two pilot accelerated schools comprising grades Pre-K through five with combined staffs of approximately 150 persons. Both schools are magnet schools distinguished by an Accelerated Schools theme, and both are schoolwide Title 1 projects. They are in a large school district in the southeastern United States, and reflect both urban and suburban populations. A third accelerated school participated in the development of the instrument used in this study, but was not included in the data collection. Our relationship to the three schools is that of coach and trainer. We have worked with the three schools for two and a half years, providing six days of training during the first year, four days of training during the second year, and regular site visits during the third year.

Powerful Learning Checklist: Development

Henry Levin points out what powerful learning is not; it is not a "checklist or formula" but rather a "philosophy and process that focuses on an integrated and constructivist approach to learning." (Accelerated Schools Newsletter, 3(3), p. 12). The development and use of a "checklist" for teachers, then, at first blush, would appear to be heretical and counterproductive. Our experiences, however, are similar to those of literacy researchers who have chronicled teachers' resistance to change and their reluctance to embrace new practices. For example, Duffy (1991) states:

> "I have learned that in real classrooms huge changes are rare. Instead, for a 20-year teacher who has an established set of routines which effectively accounts for the complexities of teaching 28 kids a variety of subjects in limited time under the gun of the state assessment test in a context where compliance with policy mandates is expected and in school districts where virtually every bond issue is voted down, a huge change is moving from not providing any sustained silent reading time at all to trying it out for 10 minutes 3 days a week." (p. 16)

While we agree with Levin in his assertion that powerful learning is a philosophy of teaching rooted in constructivism, we argue that the realities described by Duffy are accurate and that our perceived need to help teachers translate theory into practice in no way implies a lack of allegiance to his model. In fact, we believe that the development of the powerful learning indicators checklist honored

constructivist learning principles and provided participants an opportunity to participate in a powerful learning experience.

The *Powerful Learning Checklist* (see Attachment A) was developed collaboratively by the staffs of the three pilot accelerated schools as part of the second year training activities. Building on knowledge gained during Year One training and implementation, additional resources supporting its development included *Powerful Learning in Accelerated Schools* (Accelerated Schools Newsletter, 3(3), 1994), a videotape of exemplary instruction, and personal reflections on how individual learning had occurred. The checklist was begun in eighteen grade level group meetings. Teachers and support staff were asked to generate a list of "indicators" of powerful learning which were ultimately shared with the large group. At a later date, the list was refined by an ad hoc cadre made up of volunteers from the three schools. It was put into final form by the researchers/coaches. Prompts for the initial work session included: What does powerful learning look like? What environmental conditions are conducive to powerful learning? What are the children doing? Is there a range for each indicator that can gauge novice to expert implementation of powerful teaching? The completed checklist consists of 51 items in 5 categories: classroom, materials, students, curriculum, and teacher. The level of usage is rated on a scale from 0 to 4 (none to routine). Following the scoring, three strengths and three challenges are identified.

Powerful Learning Project

Henry Levin has observed that the third year of acceleration is when a participating school is better able to focus its energies on powerful learning in the classroom (personal correspondence, June 1995). In his opinion, during the first two years a school must concentrate its efforts on the "big wheel" changes that need to occur in order to transform a traditional school into an accelerated school. However, once the school has internalized the three principles and implemented the accelerated schools governance structures, it is then freed to place additional energy on powerful learning. As coaches, we determined that our role during Year Three would be to bring powerful learning to the forefront through the creation and implementation of the *Powerful Learning Project.*

The *Powerful Learning Project* was shared with the schools during a day of reflection that marked the beginning of the third year of acceleration. Presented as a project to encourage reflective practices and collegial coaching, each staff member was given a Powerful Learning Journal which described the two components of the project on the first page. First, participants were encouraged to choose a powerful learning partner who was described in the journal as "someone you would like to pair with this year--a collegial coach." The intention was for Powerful Learning Partners to work collaboratively during the year to develop and use powerful teaching techniques, to share and build on each other's strengths, and to plan and teach as a team. Further, those electing to participate in the project were challenged and

encouraged to constantly seek out new ways to share ideas not only within the partnership but with the school as a whole. Finally, partners were encouraged and frequently reminded to refer to and use the *Powerful Learning Checklist* as they planned and assessed their work together. In addition, we suggested that they might consider using the checklist as a reference should they decide to do "peer observations" within the partnership.

The second component of the project--*powerful learning seminars*--included both formal and informal opportunities to learn about student-centered, constructivist teaching practices. Two university language arts professors who were familiar with the Accelerated Schools Project were engaged to provide the formal opportunities--a series of active learning workshops during four early release days spread throughout the school year. The participants were challenged to create the informal themselves. We advised them that we would be collecting data on their experiences at various intervals during the year, and we asked that they reflect often and record their experiences in the journals we provided. Journals were to be collected monthly so that we would have an opportunity to dialogue with them and encourage them to become risk-takers.

Data Collection

In August, prior to beginning the powerful learning seminars, each staff member was asked to write a descriptive essay about powerful learning and complete a self-assessment of the level of powerful learning in his/her classroom using the

Powerful Learning Checklist. The collegial coach--powerful learning partner--also was encouraged to complete an assessment. Participants were also asked to list three strengths and challenges in the space provided on the Powerful Learning Checklist. These assessments and the essays provide pre-test data for the study. Midway through the school year, a second data set consisting of a self-assessment of the level of powerful learning in each classroom was collected using the Powerful Learning Checklist. Once again, participants were reminded to list three strengths and three challenges. In addition, each teacher was asked to write a second descriptive essay about powerful learning using the prompt "How I Would Explain Powerful Learning to a Visitor in My Classroom." Finally, the powerful learning partners were asked to complete an interim report detailing their activities.

Data Treatment

Powerful Learning Essays

Guided by the premise that an increased ability to describe powerful learning would indicate a growth in understanding and use of powerful learning in the classroom, we selected 27 sets of essays to score. We developed a scoring method and trained a group of six teachers from the three schools in the scoring process. As a result, each essay was read by at least two persons, and a randomly selected subset of essays was scored by eight persons. During the first round of scoring, when a score varied by more than two points, the item was discussed and consensus reached between the two researchers. The subset was scored by the trained teachers who were

asked to discuss the papers and to reach a consensus score for their group. Their scores were then compared to the scores of the researchers.

The scoring method was developed from the powerful learning triangle described in the Accelerated Schools Resource Manual (p. 35) and the powerful learning checklist. First, we coded each indicator on the checklist as "W" (what/curriculum), "H" (how/instruction), or "C" (context). We also coded each of the indicators from the original lists developed by the eighteen grade level groups. Next, each paragraph was parsed into idea units and each idea unit coded as a "W," "H," or "C," by matching the idea unit with a concept listed on the checklist. When an idea unit could not be matched with an idea on the checklist, the scorers then referred o the original list. Idea units that could not be matched were coded "I" to indicate that they were inappropriate or not powerful ideas. This process gave us an estimate of an individual teacher's progress as well as the ability to look at specific areas of strength.

Powerful Learning Checklists

The powerful learning checklist was developed in order to provide a method for teachers to monitor their progress toward the incorporation of powerful learning activities in their classrooms. The rationale was that with constant reference to and reflection upon such a list teachers' awareness levels for the various indicators would become sharper and, over time, more of the indicators would become routine daily practices. A cursory observation of the powerful learning checklists that were

gathered as pretests, however, revealed that a majority of the teachers tended to rate themselves very high in almost all categories.

We, therefore, theorized that teachers entering the third year of acceleration were fairly knowledgeable about powerful learning and confident that they were, in fact, implementing powerful learning already. Therefore, the idea of using the rating scale as a measure of growth between the first and second data collections was abandoned. Instead, we decided to analyze the strengths and challenges that a teacher listed at each interval and to note which behaviors were identified as "strengths" rather than "challenges" and to use that as an indicator of success for the interventions. In addition, we compiled a prioritized listing of all the strengths and challenges for each data collection interval in order to acquire an overview of each school's perceived strengths and challenges.

To accomplish this, each strength and challenge was coded in a manner similar to the coding system devised for the powerful learning essays. Through a process of comparing each teacher's August checklist with the checklist completed in January, we were able to determine whether each teacher's perceived areas of strengths and challenges rested more in the area of context, curriculum, or instructional strategies and how these changed over time.

Results

The results of the data analysis provide some insight into the growth that teachers, individually and collectively, are experiencing as they progress through the

Accelerated Schools Project and strive to implement powerful learning in their classrooms. The data also provide a window into the strengths of the school as a whole as well as the challenges that must still be met as the shift from a traditional school to an accelerated school continues to occur.

- *How do teachers describe and define powerful learning?*

Teachers who have been involved in the Accelerated Schools Project for one and one half years are able to articulate well the tenets ascribed to powerful learning theory. The indicators that were developed by the eighteen grade level groups as a Year Two training exercise provide rich evidence of their ability to describe the features of a powerful learning lesson. The compendium of indicators found in Attachment B reveals that the teachers generated many of the same descriptors used by Christensen (1994) in her comparison of a traditional school with an accelerated school. Further, the listing provides evidence that traits teachers associate with powerful learning can be aligned along the three sides of the powerful learning triangle, revealing that they clearly understand that powerful learning requires attention be given to curriculum, instruction and context.

Excerpts from the essays written by teachers provide additional support that they do, indeed, have a grasp of the concept of powerful learning:

Powerful learning activities start with what the children know and the skills they have. Activities integrate different skills and methods to help students hook new information onto prior knowledge.

I use a thematic approach and focus all subject areas on that theme in order to immerse the student in the theme. Powerful learning includes a variety of visual media--books, pictures, study prints and posters, videos, films, computer software as well as hands-on activities. Individual learning center activities reinforce the theme and other concepts as well. I also incorporate cooking activities, role play opportunities, and many art activities all designed around the theme and designed to make learning fun, interesting and something the students will remember.

The atmosphere should be so friendly that you can make mistakes and not be condemned and find solutions for the problems. Also, I find that cooperative groups help kids learn from each other and this makes powerful learning enjoyable.

In a classroom where powerful learning is evident the students are engaged in learning about subjects that are meaningful to them. They may be working in cooperation with each other or on their own. But in either case their learning is accomplished through direct hands-on experience.

Children take responsibility for their learning and want to learn.

I may have a particular idea but once it is introduced to the class it doesn't always go in the direction I thought of. The children's participation usually takes it beyond what I thought of.

The teacher determines what knowledge and experiences the children bring with them and then builds upon that. A powerful classroom is warm, inviting but not silent. Student work is displayed. Lessons use a variety of techniques such as

experimentation, exploration, peer tutoring and trial and error on the part of the child. Children are encouraged to take risks.

The children discover, construct, collaborate and discuss rather than simply reading, writing, copying and memorizing.

The quotes cited above represent a sampling of descriptions of how powerful learning would be explained to a classroom visitor and thus, what their powerful learning classrooms looked and felt like. These teachers were able to identify and richly describe the positive experiences their children were deriving from the instructional materials and classroom environment being provided. Their paragraphs were written with surprising ease and fluency. Their voices could be heard. Though words and phrases commonly used in pedagogical texts were sprinkled throughout the paragraphs, the entire pieces were genuine and fresh. Reporting directly on daily classroom experiences not only gave a naturalness to the essays, but also made it appear that the "little wheels" were indeed beginning to turn. Their words and phrases demonstrate that teachers in their third year of acceleration have internalized the descriptors associated with powerful learning.

- *What strengths and challenges do teachers experience as they attempt to increase their use of powerful learning?*

Self-assessments using the powerful learning checklist provide several windows on the various strengths and challenges that teachers perceive themselves to experience as they progress through the process of acceleration. As previously described, the

checklist requires that teachers rate themselves on 51 indicators of powerful learning and then identify three strengths and three challenges that they feel are associated with their current level of usage. Therefore, the instrument provides a way to look at powerful learning from several different perspectives.

Initially we thought that the rating scale on the powerful learning checklist would provide a way to quantitatively describe teacher growth during participation in the powerful learning project. However, for reasons that need further exploration, this was not the case. Teachers tended to rate themselves high on the pre-test, leaving little room to demonstrate an increase in the use of powerful learning on the interim assessment taken midway through the year.

However, the self-reported listing of strengths and challenges included in the last portion of the powerful learning checklist does provide a rich and descriptive profile of the growth that teachers experience as they struggle to provide more powerful learning experiences for their students. For each set of assessments, approximately 150 strengths and challenges were listed. An indicator of powerful learning listed as a challenge during the first data collection that appeared as a strength on the interim assessment was of particular interest to us. Of the 56 complete data sets, 10 were found to contain indicators that were identified as challenges at the time of the first data collection and as strengths four months later. The fact that the teachers generated the second list of strengths and challenges without reference to their first list suggests that the challenges had been reflected upon and taken seriously

enough to prompt a conscious effort to increase their level of proficiency in that particular area.

Some examples of individual challenges that became strengths are hands-on activities, cooperative learning, thematic units, inquiry teaching and literature based reading instruction. The centrality of these instructional models to powerful learning and the complexity involved in their accomplishment support the conclusion that these teachers are cognizant of the steps that must be taken to transition their classrooms from traditional learning environments to ones characterized by the practices associated with accelerated schools. Because these approaches are so basic to the realization of powerful learning, we are encouraged that these self-reported strengths provide credible evidence that progress is being made.

In addition to providing individual profiles of growth, the compiled listing provides an overview of the overall picture of challenges experienced by an entire school as it attempts to begin and to continue the spinning the "little wheels" of the accelerated schools process. Tables 1 and 2 provide a rank ordering of the most frequently mentioned challenges and strengths for the two schools. It paints a picture for us of how they saw themselves at the beginning of and midway through the third year of acceleration.

Table 1 provides summary information for "School A." "School A" can be characterized as taking a more proactive approach toward implementation of the Powerful Learning Project developed by the coaches. In this school, the Powerful

Learning Cadre assumed ownership of the Powerful Learning Project and incorporated it into an Action Plan that they implemented and monitored throughout the third year of the Accelerated Schools Project. We think this perhaps accounts for several differences that can be detected between this school's profile and that of "School B" which is summarized in Table 2.

First, it should be noted that "high expectations" emerged from both data sets as the top strength of the school--a clear indicator of the acceptance and understanding of the most basic value of the Accelerated Schools Project, the belief that **all** children can learn. On the other hand, the most frequently mentioned strength for "School B" at the time of both data collections concerned the physical attractiveness of the school. While the importance of an attractive environment is certainly not to be discounted, we feel that it pales in comparison to the importance of high expectations. Although "School B" participates in the Powerful Learning Project, it has not accepted the level of ownership exhibited by "School A"--a factor that perhaps accounts for the difference.

A second interesting point is that the top challenge for both schools in August was the need to increase the use of thematic units. For "School B" this same challenge emerged again as the top challenge in January. However for "School A" it had dropped to the second most frequently mentioned challenge, and integrated learning mentioned as the second challenge in August fell to sixth place in January. We attribute this again to the work of the Powerful Learning Cadre in "School A."

Their focus on Powerful Learning Partners as well as their initiative and leadership provided additional opportunities for the staff to participate in Powerful Learning Seminars. Not only were there seminars provided by the coaches focusing on "active learning," but the Powerful Learning Cadre also arranged several other opportunities for schoolwide meetings to share the good work that is being done in the powerful learning partnerships. For example, on a district-wide "Early Release Day" the Powerful Learning Partners shared their success stories with colleagues and then worked with other small groups to encourage the replication of specific strategies that they had used to begin powerful learning in their classrooms. This informal sharing led to more pairs of teachers wanting to form partnerships in the hopes of reaping the same benefits their colleagues were experiencing.

Therefore, while the Powerful Learning Checklists were not useful as an measure of individual growth, we feel that they do provide us insight into the challenges experienced both individually and collectively by teachers who are working hard to make acceleration a daily and routine occurrence in their classrooms. The struggles they experience are apparent; however, we are encouraged by the progress that is being made and by the opportunities for reflection that the checklist encourages. The relentless focus on the need to make powerful learning the norm rather than the exception is a key benefit to having the checklist; it serves as a constant reminder of the indicators that need to be achieved.

• *Does participation in an intervention designed to heighten awareness and use of powerful learning lead to a better understanding of powerful learning theory?*

Teachers in this study were participants in the "Powerful Learning Project" designed by the coaches to focus attention squarely on powerful learning during the third year of acceleration. The project had two main components: (1) the powerful learning partner aspect and (2) the powerful learning seminar aspect. At the beginning of Year Three everyone was provided a Powerful Learning Journal which described the project and encouraged ongoing reflection on the experiences within the partnership and within the seminars. In one school, activities sponsored by the Powerful Learning Cadre which took the project on as a challenge area further enhanced the effort.

The coaches saw the partners' work as a way to increase the visibility of several Accelerated Schools values: participation, communication and collaboration, reflection, experimentation and discovery, risk taking, and schools as the center of expertise. Working with a partner was entirely voluntary. There was no coercion within or outside the school; neither were there any extrinsic rewards or incentives. The work with the partners was totally in the hands of those choosing to participate. No schedules or agendas were suggested. No reports were required.

In contrast, the Powerful Learning Seminars were much more structured. The seminars were offered quarterly--most often on district early release days. Instructors from the University of North Florida designed powerful learning lessons for those

choosing to attend over topics which the schools had identified as challenge areas--strategies most likely to upgrade their classroom practice. The expanded agendas for these sessions included these descriptions: 1) ***Writing Interventions:*** *Writing during group work as part of class discussion. CQs instead of quizzes. Students writing questions as well as answers. Getting Kids Published.* 2) ***Rewriting Literature:*** *Making our own books. Setting up author's club and writer's library. Ashton-Warner's Teacher.* 3) ***Managing the Flow of the Collaborative Classroom:*** *Portfolio and other ways of managing papers. Audio Conferencing.* 4) **Remembrance Books:** *A year's worth of writing memories. Involving the community. Find someone to fill these pages.*

A Powerful Learning Journal describing the project but primarily intended to encourage ongoing reflection on the experiences within the partnership as well as within the seminars was given to each staff member at the beginning of Year Three. In January which was five months into the project, an interim progress report was distributed. Thirty-four staff members completed the report yielding information in eight areas. Questions caused participants to reflect on how they were being influenced by their partners and by participation in the seminars. The first two questions were procedural: who, when, where, how often. The next four were designed to determine what the partners did with and for each other. The next to the last questioned the influence of the seminars. The final one invited general, summary comments (last thoughts) about powerful learning.

We learned that a "typical 30 minute session with the partner" meant *sharing activities that have worked in our classrooms as well as challenges we are facing, non-threatening observations, pre conferences to discuss what the other will be seeing,* and *post conferences to talk about the outcomes of the observations.* The most common shared activity was planning thematic units. The most intriguing response was *We loan children when extra help is needed. We would like to pair up each of our students to work together at least once a week.*

Regarding activities that resulted from work with the partner, respondents said *We worked together on a Native American unit. It was very successful! My class painted and constructed tipis, vests, hats, and let the other class use them for their studies. The older students helped the younger ones make "Indian artifacts." We are currently working together on activities for "The Body."*

After watching Christy Moore's 5th grade class generate a class graph, I was empowered to try that with my 4th graders. They loved it! We had encountered "horizontal" and "vertical" in a prior reading story. Actually constructing a huge graph on poster board and taking turns filling out the bars--different colors--engaged the whole class in our bar graph. Determining the scale was a challenge! Thank you, Christy!

Classes have made environmental habitats, grew plants, drew whales to actual length, oceans in a bottle, geography, etc.

Reinforce the journal writing that takes place in my powerful learning partner's class. My kids love this!

We have had both Kindergarten classes together and set up centers for the students to rotate to. We have paired strong and weak students from both classes and mixed adults with the groups. Learning has taken place we didn't expect. Being flexible to change during the lessons has really helped. We have all been open to new approaches.

5th grade is making big books with 1st grade books. They came and got a 1st grade partner. These two decided on a book and read it together. Each week thereafter 5th grade and 1st grade have been getting together to see how the books are going. When all books are completed, they are going to have an author's tea party.

Shared greatest strengths included *our concern about each child, organization, use of whole language activities. classroom management styles, creativity, willingness to try a new or lesson given to me by my P.L. partner, and enthusiasm and encouragement.* Building on another's ideas (i.e., *Person with idea explains. Other adds own ideas and both brainstorm. We then go through ideas and add or subtract what will work and what won't. After session with children, we decide how project is going, etc. After completion of project we discuss what to do again, never again.*)

Greatest challenges with which partners helped included *bringing thematic units and whole language into my class, organizational skills, classroom management, to include art activities in the units without being fearful of making mistakes, giving*

directions in greater detail, fresh outlook, ideas to add onto a lesson that I felt wasn't powerful enough, activities from sources I do not normally use, getting big books for classroom and getting enough one on one reading practice, trying to do more hands-on activities, overcoming fear of trying new things, and using the computers.

The respondents reported that the Powerful Learning Seminars had influenced them in these ways: *try more cooperative learning, begin doing more group work, involve the children in more activities with literature, feel freer to take more risks in classroom.* Three comments suggested that the school is realizing one of the values of accelerated schools "becoming the center of expertise" through the use of the seminars. [The seminars] *encouraged me to share my knowledge on how to incorporate students of all learning styles and levels, I have learned ways to share my ideas verbally with my powerful learning partners, and I was able to share a videotape of my students engaged in powerful learning activities with the faculty and staff.* This was the seventh of eight questions. It yielded the fewest positive responses. Out of 34 responses one wrote nothing, five indicated they had not attended the seminars, and one wrote *So far they haven't* [influenced me]. Two others suggested lack of empowerment with these responses: *realizing some students may need more help than I can offer and not only is it hard for our group to get together, but also it is the biggest challenge every group has.*

Responses to the last question on the Interim Progress Report, an open-ended one asking for other comments about powerful learning, included eight citing the need

for more time (i.e., *it takes so much time. It is so easy to just open a textbook and teach! But the children love it and thrive so it makes it all worth the effort.*) Two which seemed most in line with the spirit of this project were *Powerful learning is an exchange of people's thoughts and ideas. Without this powerful learning will not take place. We can have all the materials in the world but if we do not share our ideas our lessons will not be as powerful.* [Because of powerful learning] *I'm taking more risks in my classroom and I've found myself encouraging my Powerful Learning Partner to also take more risks.* [It has] *helped many of us to stay focused on remembering why we are here and why we will continue to stay. THE STUDENTS*

In order to measure the impact that participation in the Powerful Learning Project--including working with a powerful learning partner and attending powerful learning seminars--we asked the teachers to write essays about powerful learning at designated intervals throughout the year. We assumed that an increased ability to describe powerful learning could be associated with an increased understanding of powerful learning which we thought would be a natural outcome of having participated in the project. In order to verify the increase in descriptive ability, we devised the scoring system using ideas units which was described earlier.

Table 3 provides summary data for the analysis of idea units at Time 1 (August, 1995) and Time 2 (January, 1996). Twenty of the 27 teachers demonstrated an increased ability to describe powerful learning. We cautiously hypothesize that this increased ability to more richly describe powerful learning is related to an increase in

its use. As the year progresses and teachers are more able to draw on their own experiences as they write--and not rely on what they have read or been told about powerful learning--they write with an ease and flow that comes only from personal knowledge.

The data for the 20 teachers who showed an increase in the number of idea units they were able to generate can be further analyzed according to school. Ten out of 12 teachers, or 83%, from "School A" showed a gain while 10 out of 15 teachers, or 66%, from "School B" were able to write more ideas. Again, we are inclined to attribute this difference to the more active role assumed by the Powerful Learning cadre at "School A." As described above, this cadre developed and implemented an Action Plan around the Powerful Learning Project which very effectively brought powerful learning to the forefront and which perhaps accounts for the greater number of gains reported for this school.

Taken as a whole, the second set of essays had 112 more idea units than the first set. Further analysis revealed increases along each side of the powerful learning triangle. There were 53 more ideas related to context; 44 more ideas related to instruction; and 15 additional ideas about curriculum. We deem the increase in ability to describe the context and instructional strategies associated with powerful learning as an important sign that the attention is being paid to these two critical areas. It is not so much the "what" that makes learning powerful, but rather the "how" and "context" that are used to involve children in the learning process. Therefore, we think the

quantitative data in combination with the qualitative data reported at the beginning of this section suggest that teachers are enhancing their instructional delivery as well as the environment and climate where learning occurs.

Conclusions and Recommendations

Prior to many of the school reform efforts that are now underway, children designated as being "at-risk" of educational failure were apt to have their weaknesses identified followed by a program of remediation intended to improve their skills in specific areas. Most often remedial programs involved the use of worksheets and rote memorization. The goal of an accelerated school is exactly the opposite: to find out what strengths the child has and provide an enriched, accelerated instructional program normally reserved for gifted and talented children. The entrenchment of the deficit model, coupled with the multitudes of teachers who still see themselves in a disempowered "traditional" role, seem to be two of the greatest barriers to the adoption of "powerful learning" practices in the classroom. In some cases teachers desire to adopt more progressive methods, but simply don't know how or where to begin, even after repeated exposure to positive exemplars in training sessions and video viewing.

The purpose of this study was to devise a way to assist teachers in integrating powerful learning theory and practice into their classrooms. It aimed to explore the teachers' understanding of powerful learning, to increase their awareness of powerful learning practices, and to support them as they took the necessary risky steps to

transform their classes into powerful learning environments. We hoped participating teachers would acquire specific habits and routines that complement the acceleration process. The checklist used in this study was designed with teachers to allow reflective self-monitoring and self-regulation. The design was intended to be both non-threatening and growth producing. Two processes consistent with constructivist philosophy and accelerated schools practices--powerful learning partners and powerful learning seminars--were the interventions used in this study. The interim data presented in this paper suggest several tentative conclusions that can be drawn at this time.

First, the powerful learning checklist as currently configured proved to be only moderately helpful in documenting increased usage of powerful learning strategies. But investigations centered on the reasons for initial inflated assessment of routine use of powerful learning need to be undertaken. Such investigations might involve focused conversations with the teacher raters and their peer partners about this issue. Further, we feel that peer observations by teams from sister schools and/or research assistants would not only yield interesting comparative data, but also would influence increased awareness of and exposure to approximations of desired practices. Finally, the possibility exists that our instrument could benefit from further refinement. For example, clustering indicators under the categories of context, how, and what are perhaps more meaningful than the present categories.

Second, while the ratings on the powerful learning checklist did not prove to be very helpful, the usefulness of the compendium of strengths and challenges far exceeded our expectations. Regardless of whether an idea was listed as a strength or challenge, it is important to point out that the statements which resulted from this reflective process are without exception compatible with accelerated school philosophy, practices, and values. In other words, the data seemed to suggest that teachers were not unduly holding on to traditional ways of teaching school. Further, the analyses of the strengths and challenges demonstrated for us that teachers were not only able to define the areas in need of continued attention, but they were also able to confidently describe their progress toward achieving the routine use of powerful learning strategies. An important outcome of all this is the precision with which staff development activities can be designed and implemented during Year Four. It proved to be an unexpectedly rich taking stock experience.

Third, interventions using powerful learning partners and powerful learning seminars appear to hold great promise for teachers in transition from traditional organizational patterns and methodologies to the routine use of accelerated practices in their classrooms. Analyses of both the qualitative and quantitative data presented in this study suggest the value of these processes in producing increased use of powerful learning in classrooms during the third year of acceleration. While not a part of the original design, the adoption and active monitoring of these processes by an existing cadre in "School A" seemed to markedly increase their impact. Further investigation

would be required to determine why "School B" did not take ownership of these processes. We cautiously speculate that the level of staff empowerment in "School B" is not equal to that in "School A." It is interesting, however to note, that in "School B" there has been a marked increase in student partnering opportunities across grade levels which we suspect may have resulted from the satisfaction that their teachers received from working together.

Finally, we feel that the processes that were used in this study and the resulting effects enhance the three principles which frame the accelerated schools project. Unity of purpose has been demonstrated in the way the partners are working together and freely share with the school as a whole. The participants are in agreement about what seem to be the most important aspects of powerful learning--thematic instruction, cooperative learning, high expectations, active engagement of students, and inquiry. Empowerment coupled with responsibility has been shown in the professionalism with which the partners meet and work together with neither external sanctions nor extrinsic rewards as motivation for their efforts. In contrast to Year One when the coaches led the way, it was most refreshing in Year Three for the schools to assume major responsibility for their own continued growth and progress with this project. It is, however, in the area of building on strengths that the most benefits seem to accrue. It is obvious that the teachers are learning from each other; they see their colleagues as "experts" and their schools as centers of expertise. While it is too early to know the effects on student achievement in these schools, it is most gratifying to note that

the teachers are no longer naming as challenges deficits which students are perceived to bring to the learning situation. Perhaps in these schools the deficits model has been quietly replaced by the strengths model. Perhaps without the Year Three Powerful Learning Project no would have noticed.

Table 1: Summary of Most Frequently Mentioned Strengths and Challenges for School "A" in August (#1) and in January (#2)

Strengths #1	Challenges #1	Strengths #2	Challenges #2
High expectations	Thematic units	High expectations	Parent/community involvement
Hands on materials/ activities	Integrated curriculum	Classroom displays of student work	Thematic units
Attractive classrooms	Use of parents/ community	Cooperative learning	Techniques for each student
Self-esteem activities	Encourage risk taking	Hands on activities	Organization
Safe/secure environment	More powerful learning activities	Materials available	Lessons with powerful learning partners
Thematic units	More challenging activities	Activities geared to varying levels	Integrated curriculum
Students involved	Classroom management	Classroom organization	Student choice
Enthusiasm	Students express themselves in a variety of ways	Students taking risks	Student ownership
Ownership	Materials	Respect	Materials for different learning styles
Classroom management	Work with more teacher	Variety of activities	Hands on activities
Willingness to improve	Time management	Students freely express themselves	Students being pulled out
Teach to all modalities	Process writing		Planning time
			Risk taking
			Questioning techniques
			Cooperative learning

Table 2: Summary of Most Frequently Mentioned Strengths and Challenges for School "B" in August (#1) and in January (#2)

Strengths #1	Challenges #1	Strengths #2	Challenges #2
Attractive environment	Thematic units	Secure environment and activities	Thematic units
Organization	Integrated curriculum	High expectations	Cooperative learning activities
High expectations	Parent involvement	Thematic units	Multi-modalities
Student work displayed	Risk taking	Cooperative learning	Student ownership
Thematic units	Varying ability levels	Team teaching	Classroom organization
Creative methods	Powerful learning activities	Variety of materials	Powerful learning activities
	Multi-modalities	Encourage risk taking	Identify strengths
	Cooperative groups		Risk taking
	Reading comprehension		
	Cooperate more with resource teachers		

Table 3: Summary Data for Powerful Learning Essays at Time 1 and Time 2										
School A										
Subject	Time 1	Time 2	Gain	Time 1	Time 2	Gain	Time 1	Time 2	Gain	Total Gain
#	Context			What			How			
5	0	3	3	0	3	3	4	8	4	10
13	3	6	3	3	3	0	1	5	4	7
17	3	5	2	2	1	-1	10	8	-2	-1
18	2	7	5	0	3	3	6	11	5	13
19	2	4	2	1	1	0	6	14	8	10
20	2	12	10	1	1	0	8	6	-2	8
21	5	7	2	9	0	-9	8	10	2	-5
22	5	3	-2	0	0	0	5	11	6	4
23	7	14	7	2	1	-1	8	7	-1	5
24	6	4	-2	0	1	1	0	7	7	6
25	0	2	2	3	4	1	22	20	-2	1
26	0	3	3	1	14	13	15	9	-6	10
Total A	35	70	35	22	32	10	93	116	23	68
School B										
32	0	0	0	4	4	0	1	4	3	3
33	0	6	6	3	1	-2	6	7	1	5
34	3	7	4	5	2	-3	6	7	1	2
38	0	0	0	0	0	0	0	0	0	0
42	0	11	11	1	9	8	13	19	6	25
46	5	5	0	7	2	-5	19	3	-16	-21
47	2	4	2	0	2	2	9	14	5	9
48	3	2	-1	0	1	1	7	13	6	6
49	5	0	-5	0	2	2	5	13	8	5
50	3	0	-3	10	0	-10	5	18	13	0
51	4	3	-1	2	2	0	8	4	-4	-5
52	4	8	4	1	0	-1	6	4	-2	1
53	1	4	3	2	1	-1	6	5	-1	1
54	2	2	0	0	0	0	7	3	-4	-4
55	8	6	-2	2	16	14	8	13	5	17
Total B	40	58	18	37	42	5	109	127	21	44
Total A+B	75	128	53	59	74	15	199	243	44	112

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School: "Attachment A"	Teacher:
Observer Name/Title:	Date:

Powerful Learning - Long Form

	Level of Usage None → Routine				
Classroom					
The classroom setting is inviting, comfortable, and attractive.	0	1	2	3	4
The classroom is organized and maintained.	0	1	2	3	4
The classroom is enhanced by displays of current powerful learning activities.	0	1	2	3	4
The classroom arrangement allows for powerful learning activities to be completed.	0	1	2	3	4
The classroom is designed by both students and teachers to accommodate their needs and develop a sense of ownership.	0	1	2	3	4
Materials which promote exploration and experimentation are accessible.	0	1	2	3	4
Materials					
Varied materials address all learning styles (visual, auditory, and kinesthetic).	0	1	2	3	4
Materials are appropriate and relevant to the activity.	0	1	2	3	4
Materials are used to promote active, hands-on involvement in learning.	0	1	2	3	4
Materials enhance/expand thematic units.	0	1	2	3	4
Materials reflect a varied level of abilities.	0	1	2	3	4
Students					
Students exhibit a sense of ownership in their classroom.	0	1	2	3	4
Students take ownership of the learning process.	0	1	2	3	4
Students have responsibilities and choices in their learning.	0	1	2	3	4
Facial expressions and body language of the students reflect their enthusiasm.	0	1	2	3	4
Students are on task and learning.	0	1	2	3	4
Students are developing cooperative skills.	0	1	2	3	4
Students see themselves as thinkers and problem solvers.	0	1	2	3	4
Students openly express their opinions during problem solving activities.	0	1	2	3	4
Mastery of objectives is evident by the students' ability to relate or transfer the information which has been learned.	0	1	2	3	4
Curriculum					
Activities are developed around thematic units.	0	1	2	3	4
Subject areas are integrated throughout the thematic-based curriculum.	0	1	2	3	4
All resources (art, music, PE, library) facilitate a thematic/integrated curriculum.	0	1	2	3	4
A whole language approach is used.	0	1	2	3	4
Activities are developed to encourage risk-taking.	0	1	2	3	4
Activities are developed to promote exploration and experimentation.	0	1	2	3	4
Activities are developed which foster role-playing.	0	1	2	3	4
A multi-modality (sensory) approach to teaching is used.	0	1	2	3	4
A variety of questioning techniques is used.	0	1	2	3	4

Powerful Learning - Long Form (Page 2)

Curriculum cont'd	Level of Usage None				Routine
Activities incorporate a hierarchy of questions.	0	1	2	3	4
Techniques (interaction/collaboration) which promote cooperative learning are used.	0	1	2	3	4
Activities focus on the concept and processes of learning than on finding solutions.	0	1	2	3	4
Activities are designed so that *all* students (regardless of ability level) can and will be actively involved.	0	1	2	3	4
Activities are designed to require students to expand/increase their abilities.	0	1	2	3	4
Activities are developed around that which has intense meaning for the student (prior knowledge, interests, real-life experiences).	0	1	2	3	4
Activities are developed based on the identified strengths of the students.	0	1	2	3	4
Teacher					
The strengths of the students are identified.	0	1	2	3	4
High, positive expectations are held for the achievement of all students.	0	1	2	3	4
Students are motivated to realize the teacher's high expectations for them.	0	1	2	3	4
The teacher models himself/herself as a learner.	0	1	2	3	4
The teacher acknowledges that he/she does not know all the answers and is also a learner.	0	1	2	3	4
The teacher is knowledgeable of all modalities of learning.	0	1	2	3	4
A variety of teaching strategies and materials are used to address these modalities.	0	1	2	3	4
The teacher functions as a facilitator of learning.	0	1	2	3	4
The teacher encourages risk-taking.	0	1	2	3	4
The teacher develops an environment where students feel free to express themselves in a variety of ways.	0	1	2	3	4
The teacher designs and maintains a physically safe and secure environment.	0	1	2	3	4
Those qualities (respect, kindness, compassion, etc.) associated with a powerful learning environment are modeled and cultivated.	0	1	2	3	4
Management techniques are employed that allow for the effective, efficient delivery of powerful learning activities.	0	1	2	3	4
The teacher identifies and fosters the resources/strengths of parents, staff, students, and community.	0	1	2	3	4
All persons involved in educating the children are kept informed.	0	1	2	3	4

Three Strengths of This Classroom:

Three Challenges for This Classroom:

Attachment B: THE CHARACTERISTICS OF POWERFUL LEARNING

TABLE 16

Powerful learning classrooms look inviting, creative, active, and exciting.
Reflect real life experiences.
You can tell by the looks on their faces
You can tell by the active participation during the lesson.
Discussion reflects critical thinking and problem solving.
When the students feel good about themselves (self-esteem)
Children learn in a safe and secure environment:
- free to express ideas
- challenging activities
- Physical space to move and react

Instruction is Hands On.
Teachers as facilitator not as disseminator.
Instruction is presented using appropriate (all) modalities
The children are learning.
The children are on task
The children are learning to cooperate
The children are teaching
The children are discussing
The children are listening
The materials are relevant.
The materials are interesting.
The materials are teacher/student made.

TABLE 14

We should see planning and cooperation within a grade level, across grade levels and with resource people.
Students should be involved in hands-on, active learning.
Parents should be informed and involved
The classroom environment should be exciting, inviting, and comfortable.
The child's prior knowledge is used to stimulate relevant learning.
Risk-taking is encouraged.
The child's self-esteem is a top priority
Questioning stimulates higher order thinking.
Cooperative learning techniques are utilized.
Lessons are integrated across the curriculum.
Experimentation is encouraged.
Sharing of ideas in encouraged.
Respect is evident among students and between students and teachers.
Classroom management is refined.
The children apply their leaning to the world around them.

TABLE 10

Powerful learning is seen through noisy classrooms working in groups to use active hands on learning. (organized chaos)
Students feel free to express themselves.
Students respect each other, their teacher and their environment.
The students develop their own rules and abide by them.

Develop activities that help creative thinking skills.
Integrated curriculum activities should center around critical thinking and problem solving.
Integrate all basic subject areas around students primary interests (food units, animals, holidays)
Use all the senses when teaching and try to build on the students strengths.
Children should be able to apply known skills into newly developed skills.
Class environment needs to be arranged in such a way that the students have personal space and comfortable surroundings.

TABLE 18

Use manipulatives when introducing new concepts.
Use thematic teaching to make learning relevant.
Students should be actively involved in the learning process.
The role of the teacher should be facilitator.
Students should be encouraged to take risk in problem solving.
Teachers should have high expectations of all students.
Materials and activities should be varied so that they meet individual learning styles.
Cooperative learning groups should be used to facilitate problem solving.
District curriculum is being utilized with flexible planning.
Students will have opportunity for communication and positive self expression.

TABLE 17

Children are actively involved by choice.
The lessons will incorporate a hierarchy of questions.
Lessons show evidence of creativity.
Children are having fun while learning.
Atmosphere of acceptance throughout the room.
Class demonstrates varied teaching/learning strategies.
Students are grouped in manageable class sizes.
Visual work evident in classrooms.
Incorporate varied subject matters in your lessons.
Teachers have ample time to plan, collect and present powerful learning activities.

TABLE 13

How We Learn

- listen
- observe
- practice
- hands on
- repetition
- role playing
- studying
- visual
- reading
- brainstorming

Students will be able to express their own opinions in problem solving.
Students will be exposed to different leaning strategies
Students will use hands on activities.
Students will work cooperatively in small and large groups.
Students will ask questions and explore for solutions.
Students will apply prior knowledge to new experiences.

Students will write daily journals.
Students will express their thoughts through multi-media
Students will related learned knowledge to life experiences.
Students will learn through trial and error.
Students will be encouraged to use expressive language.
Students will benefit from community involvement.

TABLE 3
Activities that promote active participation.
Techniques that engage thought and curiosity.
Provide accepting environment.
Teacher in role of facilitator, planner
The child's prior knowledge is used to stimulate relevant learning.
Building/utilizing strengths of students and staff
Students assume responsibility for their learning.
Opportunities to apply concepts, analyze information, solve problems, thinking critically.
Networking student to student; professional to professional; teacher to student; community to school.

TABLE 16
Children and teachers are actively involved.
Students hands-on involvement
Students past experiences related to tasks.
Students enjoying while learning.
Students feel comfortable expressing their own strategies for solving a problem.
Materials are appropriate, visually interesting, and meet different learning styles.
Students can apply their experiences to solve academics concepts.

TABLE 5
Students and teachers are enjoying themselves -- smiling and laughing.
Students get to have hands on experiences.
Students actively participating -- role-playing, asking questions, etc.
The learning environment is colorful, creative, decorative. stimulating, and supportive. Student work is in evidence.
Students have responsibility and choice in their learning.
Teachers and environment foster a positive approach to learning in students.
Students are on task and interested.
Teachers teach all modalities.
Powerful learning uses a plethora of household materials as manipulatives.
The learning builds on the strengths of the students (and their prior experiences)
Learning is integrated and organized into thematic units.
Art, music, P.E. etc. are a part of the process.

TABLE 1
Students participating in role playing activities.
The physical plant of the classroom will be transformed to illustrate what we are teaching.
Students will learn through hands on experiences.
All subjects will be integrated into the total curriculum.
Multi-modal approach to teaching will be used.

TABLE 2

Students are actively participating in the lesson.
Students are involved in a hands on activity/lesson
Teacher is assuming the role as facilitator
Students are actively demonstrating mastery of objectives
Classroom will have "constructive" noise and movement
Lesson activity integrates 2 or more of the core subjects
In addition to traditional textbooks and worksheets a variety of materials that enrich, enhance, and encourage student learning (i.e., raisins, newspaper, instruments, etc.).
Students attitude and behavior reflect an interest in learning.

TABLE 11
Teacher is the facilitator -- not the dictator (she/he blends into the group)
A variety of materials are being utilized.
Children are arranged in groups.
Evidence of powerful learning activities should be displayed in the classroom
Active participation by children should be evident.
Inviting, colorful, cheery environment.
The children's "faces" should reflect enthusiasm.
Children should feel free to respond without fear of making mistakes.
Evidence of powerful learning reflects the children's prior knowledge and/or interests

TABLE 8
Meaningful and relevant.
Academics are enriched by fun activities
Sparks curiosity so that children will want to come up with their own solutions.
Powerful learning involves "hands on" experiences.
Students are motivated because they have choices
Encourages a safe and supportive environment.
Teachers roles change.
Students learn from working with each other.
Utilizing strengths of parents, teachers, students and community.
Powerful learning provides students a more active role in learning.
Integrated curriculum fosters more meaningful learning.

TABLE ?
The children are involved in the lesson.
Students are sharing.
The activities are meaningful, interesting and fun for the students.
Students are sharing.
The activities are meaningful, interesting and fun for the students.
The lessons are creative and imaginative.
The lessons hold the attention of the students.
The lessons provide for "trial and error" learning.
The materials used in these lessons range from texts to "everyday" items.
Lessons can involve travel experiences.
The lessons can involve the community.
Lessons are taught so that all modalities are touched upon.
All resources (art, music, computer, P.E.,) are involved in powerful learning.
Themes are utilized schoolwide as well as grade-wise.
Administration should be involved in the daily experiences of the children.

Good attitudes should be the basis of each powerful teaching experience.
"Hands on" experiences are a part of the powerful learning lessons.

TABLE 2
Children are enjoying learning.
Students are active participants in their learning.
Learning is not limited to only one answer.
Students are in a variety of different groups throughout the day.
The classroom is a stimulating environment.
A variety of questioning techniques are used.
A host of materials are available and are utilized for "hands on" learning.
Laughing is evident.
Students feel a sense of ownership in their classroom.
Children learn from each other and encourage one another.
Teachers learn from students.
All areas of the room are used.
The classroom is like a magnet . . . pulling ideas from students and teachers
Visitors want to be in there because it is fun.
Parents are actively involved.
All adults want to be there.
Learning is related to real life experiences
Adults and children are seen on the floor actively learning and comfortable.
There is evidence of collaboration among professionals.
The teacher displays firmness coupled with caring and kindness.
Warm fuzzies are alive!

TABLE 4
Students are challenged by the learning activity.
Students are actively engaged in the learning activity.
Students have ownership in/of the room.
The students are comfortable with their abilities.
Trusting and risk free atmosphere.
Activities relevant to real life.
Builds on prior experience.
The students feel that their needs are very important.
Student created work.
Activities involve the concepts and processes of learning and do not focus on finding one solution.
Abundance of hands-on materials.
Students are encouraged to verbalize their thoughts.
Exploration and movement are encouraged.
Gauge of powerful learning may lie in the number of indicators observed/used.

TABLE 15
Is your furniture arranged for maximum audibility and collaboration?
Do you have real-life materials to correlate to the lesson?
Is your textbook a resource not a bible?
Are you moving around?
Are your students eager to begin?
Are all your students participating?
Are the students encouraged to explain their answers?

Are the students experiencing cooperative learning experiences?
Are you using a variety of teaching strategies?
Do you have hands-on activities?

TABLE 9

Children will display interest in lesson.
Children will be involved in hands-on activities.
Teacher will be a facilitator of the learning experience.
Students are using critical thinking skills to solve problems.
Classroom setting is colorful, exciting.
Multiple resources are being used, including technology.
Multi-modality learning is taking place (auditory, visual, kinesthetic).
Students see themselves as thinkers and problem solvers.
Lessons are built on students' prior knowledge and interests.
Community and parent involvement are evident in the classroom.
Lessons are meaningful to everyday life.
Students (ALL) are successful.
Cooperative learning is taking place.
Integration of curriculum into thematic units is evident.
All students are active participants.
Teachers are willing to share ideas.

SALLY AND CAROLE

Design learning experiences that foster student interaction/collaboration
Create lessons that touch each child
Does not GIVE information
Teacher asks reflective questions
Teacher plans with the student
Knows the right questions to ask
Teacher acknowledges that s/he may not know all the answers
Teachers model themselves as learners
Focus on what the children want to learn
Student centered instruction
Use constructivist learning approaches
Students express themselves in a variety of ways
Students explore curiosities and ask questions
Students construct meaning through challenging activities
Students conduct experiments in teams
Students use the inquiry process
There is an open exchange of ideas
All ability levels are given challenging learning situations
Students are pushed to achieve new heights
Students take leadership roles
Students analyze information; create charts/graphs to illustrate findings
Realize there is not always just one right answer or way to solve a problem
Students are comfortable with risk taking
Students take ownership of the learning process
Memorization is not emphasized
Teacher-peer tutoring