This is a year-long case study of Lakeview (Vermont) Elementary and Middle School's efforts to create an outdoor environment and improve students learning opportunities with a transdisciplinary curriculum project called "Ventures." It details the interplay of partnerships among administrators, teachers, students, parents, a local business, and a funding agency. Data sources include observations of project activities, anecdotal information from and semi-structured interviews with participants, and related documents. Observations of participating teachers reveal an approach characterized by: (1) a variety of materials and learning options; (2) learning opportunities that address different interests, abilities and learning styles; (3) integration of subjects into the curriculum around a common goal; (4) students and teachers making decisions and selecting learning activities; (5) inquiry and investigation as teaching and learning concepts; (6) placing information in a context that has meaning for students; and (7) teachers investigating with their students, providing a model of the lifelong learner. Major questions arising from this study concern grant funding, e.g., results of partial funding, whether the grant application process sets up schools to create unrealistic plans, and grantors cognizance of the realities and complexities of daily school life. (MAH)
Ventures in Integrating Curriculum:

A Case Study of Teachers and Students Learning Together

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Research funded by a grant from the Vermont Institute of Science Math and Technology
Ventures: Teachers and Students Learning Together
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This is a year-long case study of one school's efforts to improve learning opportunities for its students with a teacher-designed transdisciplinary curriculum project called "Ventures". It details the interplay of partnerships among administrators, teachers, students, parents, a local business, and a funding agency.

Lakeview teachers applied for four grants in a single proposal that had as its purpose the creation of an outdoor environment at the school through a long-term integrated curricular framework. Only one of the four grants was approved, however, and the original goals were modified. Lakeview was well-positioned for success. The k-8 school is at the heart of a community that supports education and is staffed by innovative teachers who typically plan for interdisciplinary learning within individual classrooms. In addition, its teachers had been highly-recognized during the previous year for the "China Contract," a short-term project that featured a close partnership with a local business. The China Contract transdisciplinary framework would be used, and a continued partnership with the local business would be central to the new project.

Teachers worked diligently in teams during the summer to plan "Ventures". By the end of September, the administration, school board, students, teachers, parents, and business partnership were eager to begin. Then, the project's leader left unexpectedly, another leader became ill, state assessment mandates placed pressure on teachers, communication with the business partnership stopped, and funding for materials fell through. On the surface, it appeared that "Ventures" was not meeting its goals. Although the project continued, it did not have all of the components outlined in the original grant proposal.

Yet it is a story of success, not failure. Lakeview's case depicts incremental change that has the potential to endure. "Ventures" made a difference for both students and teachers. Students expressed that learning felt meaningful and connected. Teachers developed skill at working collaboratively rather than on individual projects. And one year later, absent the funding, "Ventures" continues at Lakeview.

This case study raises some questions about funding processes for grants. What effect does partial funding of a grant have on its implementation? Does the competition for funds cause teachers to develop a proposal with unrealistic goals? Do funding agencies understand the daily dynamics of schools?
The last three yellow buses packed with laughing, energetic children pulls out of the wide driveway as I turn into the school parking lot. 3:15 p.m...the end of a busy September Thursday at Lakeview Elementary and Middle School! I enter the familiar building through the glass front doors and scan the hallways. All is quiet except the sound of a broom being pushed across the tile floor, and a high-spirited "Hello" from Bob, the custodian. I climb the stairs to the second floor, where the fifth and sixth grade classrooms are located. The halls are typically silent for this time of day...

...until I turn a corner. Then, adult voices break the silence:

"That's really neat!"

"The kids will love figuring out how to make that!"

"How do I make one?"

"I hope we can find enough bottles for every kid in fifth and sixth grade to do this!"

Something unusual is happening in the room at the end of the hall...I recognize the voices of fifth and sixth grade teachers and follow the sounds to an open door. Standing unnoticed in the doorway, I survey what is happening in Gail Anderson's sixth grade classroom. All seven teachers of grades five and six and one junior high science teacher who "just wanted to learn something new" sit and stand around four tables that are pushed together to form one large one. Strewn in the center of the tables is a curious hodge podge of empty two-liter soda bottles, candles, string, bird seed, boxes, markers, nails, scissors, paper punches, a tea kettle and an exacto knife. Chatter and laughter permeate the spacious room as the teachers rifle through these materials to each select two bottles to start their project.

What are these teachers doing? Indeed, the whole room is buzzing with activity! Barb and Lisa are engrossed in a book entitled "Bottle Biology". Susan, Gail and Christine are frustratingly helping each other remove labels from their two-liter plastic soda bottles. Claire, a sixth grade teacher, is intently showing Collette, a fifth grade teacher, how to mark a bottle for cutting, using a box, a marker and an exacto knife. Clearly, these teachers are actively engaged in learning to do something...and they are enjoying it.

I came to Lakeview School to observe a "planning session" for teachers developing integrated curriculum; this is not what I expected to see and hear. During typical curriculum development meetings in which I had participated, teachers sat at tables, laboriously discussed instructional goals and objectives and recorded these as lists and matrices. In contrast, these teachers are involved in doing activities that they will be asking their students to do...they are collaborating, and they are having fun. They have come a long ways!

Professional development activities such as this one in Gail's classroom did not just happen—they evolved during a journey of one year, as part of one school's effort to design a meaningful integrated curriculum for their students. The purpose of this paper is to describe, document and learn from their journey. It is a study that includes the interplay of
partnerships among administrators, teachers, students, parents, a community, a school board, businesses and funding organizations as they pursue the common goal of improving students' opportunities to learn by using an interdisciplinary approach to teaching and learning.

Why study Lakeview School's journey? In recent years, considerable attention has focused on "integrated curriculum" and "interdisciplinary learning." These words mean different things to different educators. Integrating curriculum can take a variety of forms, from better coordination between disciplines, to a total blending of them (Drake, 1993; Willis, 1992). If grassroots efforts to change to integrated curriculum are to be successful, it is important to study specific contexts where implementation or attempts at integration are occurring (Stake, 1993). A broad range of such studies may be useful for educators, funding agencies, and policy makers to understand the nature of integrated curriculum efforts over time in a variety of contexts, and to provide a framework from which others might conceptualize, develop and evaluate their own efforts at integrating curriculum.

Some overarching questions frame my data collection and analysis: How is integrated curriculum developed and implemented in this case? What is it like for the participants in this project? What factors affect the implementation of this model? What features and circumstances appear to contribute to its successes or failures? (Patton, 1990). Effective movement toward integration of curriculum is logically grounded in specific understandings of "what works," "what doesn't work," and "why"--that is the nature of this inquiry.

This case study is structured in four parts. First, I describe my research methodology. Next, I set the context by providing a window on the history, culture and climate of Lakeview Elementary and Middle School. Against this backdrop, I present the proposed project that is funded by a VISMT grant. The third section contains the heart of the study: it relates events that occurred during the planning and implementation of the project. As the story of "Ventures" unfolds, the nature of this school's journey toward a more integrated curriculum is revealed. In a concluding fourth section, I discuss some of the implications from this case and posit questions for further study.

Methodology

I am no stranger in Lakeview Elementary and Middle School! It is located in a neighboring community only six miles from my home. Although I am not presently employed there and did not work there during the year of this study, I have been a classroom teacher at Lakeview School for thirteen years. I am a friend, colleague, and in some cases a former teacher of the participants in the study. That I am not fully detached from the flow of life at Lakeview School might be viewed as a problem in my role as an objective analyst. Indeed,
"backyard" researchers are cautioned that friendship may bias data selection and decrease objectivity in data analysis (Glesne and Peshkin, 1992).

But it can also be advantageous. Being accepted and trusted is an essential condition for conducting qualitative research (Glesne and Peshkin, 1992). Groundwork for rapport and trust between myself and the participants was pre-established. Access to anecdotal information and observation of subtle dynamics was facilitated by this trust and by my familiarity with the school system. Participants were relaxed when talking with me, and I was readily allowed access to students and classrooms. Consequently, risks of reactivity to observations were minimized because of my previous relationship with faculty and students. Throughout the study, however, I cautioned myself of two researcher biases—my loyalty toward Lakeview school, and my pedagogical disposition toward the type of curriculum that blurs divisions and connects ideas across disciplines, is inquiry-based, meaningful, and rooted in student interests.

I conducted this study over a 12 month period from June, 1994, through May, 1995. I made a total of 26 visits to Lakeview School and to professional development and planning activities in which the participating teachers were engaged. My data sources include (1) observations of classrooms, professional development activities, teacher planning meetings, and project-related events and anecdotal information from participants during school visits and informal telephone conversations, (2) semi-structured interviews with teachers, school principals, students who participated in the project and a representative from a business who had formed a partnership with the school, and (3) related documents.

**Observations**

The duration and frequency of observations, and my previous involvement in the school system helped to make indepth collection of evidence possible. Fifteen scheduled and unscheduled observations in a variety of contexts over a twelve month period provide a rich data base for this study. These observations vary in length from 90 minutes to 6 hours and cover the major contexts of curriculum development and implementation:

- six days of summer planning (June & August)
- one meeting of business-school partnerships (late August)
- one staff development activity at Lakeview (September)
- one planning meeting for integrated curriculum at Lakeview, (October)
- six days of classroom observations (November through May)
- one culminating activity, "Guest Speaker Day," (May)

I kept a running record during observations, which I used to reconstruct the experience within two days of data collection.
Besides observational notes, anecdotal discussions and comments from participants provided rich insights into issues, perspectives, and hypotheses about the process. These impromptu interactions occurred on the telephone, in the hallway, in the school's parking lot, or in the supermarket. In general, these conversations either dealt with matters and issues the participants felt were significant and required attention or were descriptions of events that I could not observe. I recorded them in the field log and reconstructed them as accurately and in as much detail as possible.

**Interviews**

I conducted individual formal semi-structured interviews with all eight teachers participating in the project and with seven pairs of students. Six teachers (Barb, Susan, Christine, Collette, Melissa and Lisa) were interviewed at school individually in February; these sessions varied in length from 45 minutes to 75 minutes each. In addition, Gail was interviewed in October, and Claire in May in their homes. Students were interviewed at school in pairs in March for about 25 minutes, in addition to impromptu questions I asked them during my observations of Ventures classes.

Open-ended interviews were individually conducted with Marvin and Bonnie, Lakeview's two principals, and with Andy, a representative from Wyeth Nutritionals, a local business that had formed a previous partnership with Lakeview school. Marvin was interviewed in July, and Bonnie in January. Andy was interviewed informally in August, and more formally in February. All interviews focused on perceptions of change, and were designed to allow the interviewees to talk about what it is like to be a participant in the project, as well as their beliefs and practices about integrated curriculum. Interviews were audio taped, and I transcribed them verbatim.

**Documents**

A wide variety of documents were generated during the planning and implementation. These include:

- educational material distributed to teachers who attended summer professional development institutes,
- action plans developed by teachers at these institutes,
- copies of the project leader's notes from early on-site planning meetings,
- student work samples,
- any materials distributed during Ventures classes or special activities,
- photographs,
- teacher newsletters to parents,
- student newsletters,
- planning calendars distributed by project leaders,
-documents prepared by teachers for school board meetings and for the funding agency (VISMT), and
-copies of a monthly community newsletter.
In each case, the source and context of the data was documented and it was embedded to support appropriate interview or observation data.

Data Analysis and Validity

The main focus of data analysis was to reconstruct the experience from a variety of perspectives, and to identify themes and issues that were grounded in the data collected. To achieve this, the transcribed interviews and observational field notes and documents were arranged in chronological order. The next phase of data analysis involved the identification, coding and categorization of primary patterns in the data, using a content analysis procedure (Glesne and Peshkin, 1992; Patton, 1990). In doing so, I triangulated data sources. Interview data were examined for consistency with direct observations. In addition, documents were analyzed for additional insights into the characteristics of the school and the concept of integration or change they conveyed. Drafts of initial findings were shared with project leaders and feedback invited. The final draft of the report was shared with participants, and feedback and written rejoinders were invited. This "member check" (Glesne & Peshkin, 1992) assured that findings were recognizable as that which they had experienced.

Frequent team meetings with five other researchers conducting similar case studies at other sites provided an opportunity to discuss emerging trends, affirm perceptions and develop interpretations. By having research team members compare, discuss data, and generate themes, the potential for bias that might arise with a single perspective was minimized.

Context

"Where Everybody Is Somebody!"

If you are looking for downtown Lakeview, you will not find it! Lakeview, a Vermont community of about 5,000 citizens, does not have a downtown. Two-laned Route 7 winds through the center of this quiet town. Dotted along this four-mile route are several modest homes, followed by two majestic brick colonials built in the 1800's, a few mobile homes, and two visible working dairy farms. A third farmhouse is empty, and there is a "for sale" sign next to the road in front of it. There are also some small businesses and public buildings scattered whimsically along the route: a gas station, three small general stores, a video store, a state regional library, a small community library, two churches, and a town clerk's office. It feels like a town without a center, without a heart.
...until the impressive structure behind the sign "Lakeview Elementary and Middle School" grabs attention. Is it the newness of the red brick building, the uniquely tri-shaped large expanse of it, or the well-kept grounds surrounding it that is most striking? Three playgrounds are visible in the wide stretch of green grass surrounding the buildings, and rows of cars line two large parking lots. It is a much larger facility than one would expect to find in this sleepy little town. Where do all the children come from?

Lakeview is bordered on one side by Lake Champlain and sits on the boundary of agricultural Franklin County and suburban Chittenden county. In recent years, it has shifted from a farming community to being a predominantly middle class bedroom community for people who work in Chittenden county. Not visible from Route 7 are several new housing developments, a cluster of long-established neighborhood homes (i.e., "The Plains"), an industrial park, and a public beach and recreation area. The town's rapid growth is exemplified by the school, which was built in three stages in response to surges in the town's population. It houses about 700 students in grades K-8 and is the fifth largest such school in Vermont. Although it looks and feels like a small town, its school is not small by Vermont standards.

This school is the heart and pride of the community. Lakeview taxpayers are known for supporting more than denying education and have carved out a self-identity that draws young families to live here. Marvin, the school's principal for more than 28 years, expresses how committed the town's citizens are to their school system and their community:

I sit here in this 8 to 9 million dollar (school) building and very quickly explain that the taxpayers of Lakeview have been extremely kind and responsible to their children and to their community. We have a lovely town beach, a nice village library, an involved recreation committee, a Golden Age group, a Friends of the Arts group, a concerned and knowledgeable first response team, as well as a volunteer fire department; a beautiful town facility full of accommodating folks. We have many community members leading all levels of Girl Scouts and Boy Scouts and at least two active 4-H groups...Lakeview is a very good place to live. Good old fashioned values are still hale and hearty in the town of Lakeview.

These "good old fashioned values" that are a part of Lakeview the town, are also at the heart of its school. Education is a community priority. A stroll through its immaculately-kept corridors reveals a state-of-the-art learning center, a computer laboratory, two gymnasiums, vocal and instrumental music rooms, a science lab, a community meeting room, a schoolwide enrichment program, two art rooms, a tech-ed room, a living arts room, speech and language pathologists, Chapter 1 services, a full-inclusion special education
strong academic skills presented in a practical form, and note that students need supportive families and a community that supports excellence and lifelong learning. A computer-made banner above the showcase in the front lobby shouts a similar sentiment: "GREAT EXPECTATIONS = HIGH STANDARDS = GREAT RESULTS. There is also an unwritten goal and belief that is expressed less directly, yet is evident through observing the relationships within the school. Respect for the individual learner is central to the school's vision and philosophy. When asked whether the teachers and staff have a shared vision for their school, Marvin responded,

    I think that they're all in agreement with administration that we are here to serve all needs and that we will do it to the best of our ability. Everybody is somebody, regardless of whether you have an impairment or a large brain. We are going to try to accommodate you. Each year, we look at how we deliver services to special needs youngsters, and each year it's developed a little differently. We're never quite happy. We look at programs that test those who learn easily, giving them incentive to keep learning rather than sitting bored.

Even the official school stationery is engraved with the words, "Lakeview Elementary and Middle School....Where Everybody is Somebody!"

Integrating the Curriculum:

"A JOURNEY OF A THOUSAND MILES BEGINS WITH A SINGLE STEP"
(Theme of the "China Contract"

"Ventures" is not Lakeview's first step in planning integrated curriculum. At Lakeview school, educational innovation and reform is encouraged and supported, and teachers are valued as decision-makers. Teachers work together across grade levels to write discipline-based curriculum for the school, but then they have autonomy to decide how the curriculum is delivered within their individual classrooms. This autonomy is respected by the two principals, who encourage the highly-veteran faculty to update their knowledge and to participate in professional development:

...one of the issues the school board was hammering at was that we will pay for teachers to get their education up and beyond the bachelors. So there are many who said, "Fine, I'm going out to get my degree and come back." And when they come back, they have new ideas. And they infuse them as part of their tool kit, but they don't necessarily make it their whole tool kit. Which is nice. Changes are subtle, but when they do occur, they usually do last. (Marvin)
Some of these "subtle" changes have been in the direction of integrating curriculum. There have been both classroom-based and schoolwide efforts.

**Classroom-based Integration**

Within individual classrooms, it is not unusual for teachers to take a multidisciplinary approach to integration (Drake, 1993) by realigning content within the disciplines so that overlapping topics are taught concurrently. For example, students may read *The Diary of Anne Frank* in reading class while they are studying the Holocaust in history. This is a relatively common way for teachers to take a first step in linking the disciplines. Some classroom teachers in Lakeview have spearheaded ambitious projects using this multidisciplinary approach. Typically, teachers begin to plan by creating semantic webs that show natural connections between disciplines. In this model, the disciplines remain intact enough to organize knowledge through them. For some teachers, this model of integration within their own self-contained classrooms is "business as usual."

**Schoolwide Thematic Units**

Lakeview is one of the few Vermont schools that has a schoolwide enrichment program, and Nancy, its coordinator, plans a schoolwide thematic unit each year that is multidisciplinary in nature. For example, during the year of the study, the entire school engaged concurrently in a thematic unit about the USA. During this time (usually about one month), participation is voluntary, teachers decide to what extent they and their students will participate and Nancy provides them with suggestions for multidisciplinary activities appropriate for their grade levels. Besides activities within classrooms, there are guest speakers, artists-in-residence, authors, exhibits of artifacts, student displays, etc., in which all students are invited to participate. Schoolwide theme time is marked by contagious energy, enthusiasm, and feelings of community across grade levels.

**The China Contract: A Giant Step**

During the 1993-1994 school year, Lakeview School tried a different and more sophisticated approach to integration when it developed and implemented the "China Contract." This ambitious VISMT-funded project was a departure from their typical thematic approach to integrating curriculum. It created several interdisciplinary units around a single project. Susan Drake (1993) describes this model as the "Transdisciplinary/Real World Approach" in which discipline-based and interdisciplinary instruction co-exist. In this approach everything interconnects, and the focus is shifted to core learnings that are "essential to living one's life in the future" (p.43). Disciplines are transcended, but are embedded naturally within the connections, and the potential for making meaningful connections across disciplines is rich.
The "China Contract" featured a close school/business partnership with Wyeth Nutritionals, a local industry. Wyeth had previously expressed a strong interest in developing a partnership with Lakeview school, and the administration and teachers responded positively. During the summer and early fall, a select group of teachers and the middle school principal worked in partnership with Andy, a management trainer from Wyeth, to plan and implement a real life context for Math, Science and Technology as an integrated framework for learning for students." The "China Contract" was born during those discussions. Gail, a sixth grade teacher who later became the project leader, recalls how the idea evolved:

They (Wyeth) found that a lot of people they were hiring were lacking mathematical skills, and one of the areas was the metric system...so that was the first idea that was brainstormed...and all of a sudden, nobody, none of us, know how it evolved, but we started thinking about doing a simulation of Wyeth at Lakeview School. We got together to brainstorm, and things just grew and grew...It was probably more Andy's idea than us.

Gail and Andy became the leaders and contact people for the project and formed a solid teacher/business leader partnership.

The "China Contract" provided an applied learning experience through a simulation of Wyeth Nutritionals at Lakeview School. The project launched with a realistic order for a customized nutritional product for mainland China to be developed and manufactured in Lakeview. The product needed to be specifically designed for growing young people and the elderly in need of extra nutrition unobtainable from their diet. The objective for students and teachers in grades 5-8 was to meet this specific market need. For ten weeks in October through December, Lakeview's classrooms were transformed into several "departments", which mirrored Wyeth departments, ranging from human resources to management to engineering. Students applied for jobs with the various departments, and then were interviewed by their peers. Work within the departments involved activities every other day for 90 minute periods. All students and teachers in grades 5-8 were required to participate. Community members and parents volunteered. Learning took on a life of its own!

The "China Contract" drew propitious statewide attention for both Lakeview School and VISMT. More than 1000 community members attended its culminating event. The state Commissioner of Education publicly lauded the project as a stunning illustration of a school in transformation to deliver high skills for every student. All the elements were there in plan view: high expectations, public review of the results, and one of the best school-community partnerships I have ever seen. (Mills, 1993)
The "China Contract" was featured in television and radio news shows, as well as local and state-circulated newspapers. Gail and Andy were invited to describe its framework to Vermont educators on several occasions. In addition, VISMT invested in making a video about the project, which was shared internationally. Outwardly, it was declared a huge success.

Its final evaluation revealed some internal issues, however. Although teachers unanimously saw the value of the project for their students, few of them felt ownership. Bonnie, the middle school principal, noted that "not everybody bought into it, but everybody did it." Some teachers did not like that it was mandated, and expressed that they felt dictated to. Some teachers and parents saw it as an intrusion into the curriculum. There were also issues about equity of participation for students:

We learned what did not work by doing the China Contract. We learned that some parents felt that their child didn't get enough math because of the groups that they had assigned themselves to. We know that Barb's group, the one that was putting together the formula and taste testing it got a lot of measuring and hands-on stuff.

Other groups did not...so it was a little forced. (Bonnie)

In spite of these issues, teachers did not regret having participated because they liked the energy and enthusiasm it created among students. Nearly all said that they would participate in a similar project again, but suggested that (1) the next project be about something students can directly relate to, (2) more teachers be involved in the planning, (3) that there be more choices for teachers and students, and (4) that it be less time-intensive. By spring, Lakeview enthusiastically applied for a follow-up grant that would involve every K-8 student and teacher in Lakeview School working toward another single goal...the vision of "C4."

The "C4" Grant: A Vision Emerges

Lakeview School applied for a second VISMT grant, the subject of this study, while riding high on the wave of the huge success of the "China Contract." Actually, "C4" (named for the "4 C's of restructuring: Communication, Community, Collaboration, and the Common Core") was originally an application for four grants (@ $5000) under the categories: (1) Business/Community: (2) Building Coalition, Restructuring: Expanding and Innovation, (3) Business Community: Family and Community Events and (4) Curriculum: Practice Models. These four grants were incorporated into a single proposal to develop a school-wide integrated curriculum that has at its center the creation of an outdoor environment at Lakeview School, including playgrounds, gardens, and wildlife habitats. The endeavor would include an expansion of school/business partnerships and would use the transdisciplinary framework of the "China Contract," supporting Lakeview's initiative to
involve business and community partnerships in implementing meaningful educational experiences.

Whose vision was "C4"? It was another collaborative effort by those who had also been instrumental in creating the interdisciplinary vision for the "China Contract": the middle school principal (Bonnie), the school's enrichment coordinator (Nancy), and the teacher/business partnership leaders for the China Contract (Gail and Andy). "C4" differed from the "China Contract" in three key areas. Importantly, it focused on a project that held immediate relevance for the school and community. Although Lakeview had recently built a new school, the outdoor environment surrounding the school had not been upgraded. Secondly, the project would gently span three years, unlike the "China Contract," which had ended after an intensive ten weeks. In addition, before the grant was submitted, the administration presented an overview of the idea to all K-8 teachers and received a verbal commitment from each one. Had all four grants been approved, the "C4" project would have included all of the school's 53 teachers and 700 students. But Lakeview received one grant, "Curriculum Practice Models," and its purpose was solely curriculum development. Their broad vision had to be modified.

The vision was modified, but not lost. The original goal of using the "China Contract" integrated framework for creating an outdoor environment remained intact. The entire school would no longer be involved, however, and not all of the outdoor environments could be created through this grant. Instead, teachers would work with students to develop a three to five year plan for creating an outdoor environment at the school, although future resources to implement the plan were unresolved. Initial planning would be framed by two teams of teachers attending two summer staff development opportunities: a School Development Institute and a VISMT Summer Institute. Gail and Susan, a teacher in a grade 5/6 multiage classroom, formed a project planning team for the June School Development Institute. They would generate the initial framework, and then Gail, Claire, and Barb (sixth grade teachers) would take this plan and develop it further at the VISMT Summer Institute in August. The plan would be presented to teachers at an August faculty retreat. From that point, planning would be ongoing during the year by all participating teachers, and the emerging curriculum would be written.

Planning "Ventures"

The SDI: Developing a Blueprint

During a week-long School Development Institute in June, Gail and Susan attended workshops and seminars about learning styles in the morning, and met each afternoon to plan the VISMT project. Early in the second afternoon, I found them sitting across from
each other at two student desks that had been shoved together to make their work space in Susan's 5/6 multiage classroom. The bare room echoed; the teaching materials that usually engulfed it were packed away for the summer. Boxes of materials were piled on shelves, and furniture was lined against walls and in corners. It was quiet, except for two highly-spirited voices. They did not hear me enter, because they were immersed in the act of brainstorming activities and recording their ideas on a web. While Susan talked, Gail quickly scribbled words on paper, sometimes finishing Susan's sentences or adding to the idea. Often their voices converged; they seemed to feed off each other's ideas and energy.

Satisfied with their planning web, they set it aside and debriefed me on decisions they had made about the project they had decided to name "Ventures":

~It would be a three year plan with the first year being Phase 1. During this phase, they would focus on the outdoor environment of the Middle School only, and there would be no direct involvement for grades K-4. Participation of all grade five and six teachers would be necessary, and 7th and 8th grade teachers would be invited to become involved during their exploratory times "when it connects in an interdisciplinary way."

~The theme of Outdoor Environments would be the focus of the plan, and there would be exploratories about this theme. These exploratories were termed "Ventures" because it "fit the concept" and "is a good open word." Some Ventures would be ongoing, and some would rotate every 25 days. Known talents and interests of fifth and sixth grade teachers were considered when the web was created. (See Figure A)

~"Ventures" would be enacted once weekly for about one hour, and they would change during the year.

~Teachers would choose three or four "Ventures" that interested them, and tell the planning team why they made these choices.

~Wyeth Nutritionals was interested in being involved and continuing the school/business partnership initiated by the "China Contract." (In addition, a list of 17 possible business partners was generated.)

Their next step was to develop goals for the project. Sally and Gail approached this mental exercise with the same ease, efficiency, and energy as the web. In a matter of fifteen minutes, they listed seven goals for "Ventures":

1. To improve the awareness and practice of safe play and social responsibility,
2. To increase the variety of activities in our outdoor environment,
3. To develop a plan which allows for student/teacher choice,
4. To integrate subject areas which will foster connections to lifelong learning,
5. To foster ongoing communication among school, community and business groups,
To encourage students/teachers to develop their interests, talents, feelings and goals,
(7) To teach skills within an integrated format.

With these goals in mind, and without hesitation, they quickly became engrossed in defining the functions of each of the thirteen Ventures, "like we did when we planned the departments of the China Contract." (Gail) The "China Contract" documentation was always within arm's reach, as Susan and Gail fervently created a blueprint for "Ventures."

During their fourth afternoon, there was a more subtle energy in the room. They were engaged in very concrete and practical tasks. Gail sat at a computer creating a questionnaire for teachers to use in the process of choosing which Ventures they would teach. Susan stood at a table preparing a poster to use when she presented the plan for "Ventures" to teachers in grades 5-8 at an August middle school faculty retreat. (Gail would be attending the VISMT Summer Institute during the retreat; Susan would present this alone.) As Susan wrote slowly on red posterboard with magic markers, she chimed,

"This is so exciting! I've always liked the idea of having a year-long theme with kid choices. And this theme is great, because it focuses on values of self, others and the environment. I like the kinds of activities that bind kids. When you're done, you feel like you've made a difference. I also like working with other people to plan this, and the process of thinking of ways of getting out of the mold......I love it!"

Gail smiled and nodded her agreement. They liked the blueprint they had created to launch their vision.

But they felt vulnerable. In order for the vision to become a reality, the commitment of the other five fifth and sixth grade teachers was crucial. Some teachers had found the "China Contract" to be overwhelming and had been vocal about it. Would they be willing to participate in this project so soon? Would the other fifth and sixth grade teachers buy into and then share their vision? Where would it go from here?

VISMT Summer Institute

Developing inquiry. Gail carried the blueprint for "Ventures" that she and Susan created to a two-week summer institute at Randolph Technical College sponsored by VISMT entitled "Integrating Science, Mathematics and Technology." She was joined there by Claire and Barb, two other Lakeview sixth grade teachers. As a team, their task was to go the next step in planning--to revise, refine and extend the plan.

I traveled to Randolph observe this planning team twice, once during each week they were there. When I arrived at the college the first time, it was a cloudless August morning, and meetings were in progress. I hustled to locate the Lakeview teachers, and found Gail,
Barb and Claire engrossed in a slide presentation about "Fast Plants." Within minutes, I was drawn in. We sat around a table piled high with jars, plants, potting soil, water, corks, slides, test tubes, prodding and digging implements, and we learned to plant special seeds that would yield green plants in less-than-normal growing time. The presenter explained,

After the kids have their seeds, they will have questions. For example, they may want to know why the plant they placed in red food coloring dies. I will not answer that question for kids. Don't tell them. Get it out of them. That's inquiry!

"Inquiry!" became the buzzword of the institute. The Lakeview teachers lived and breathed "inquiry" and "constructivist teaching" for two weeks. The blackboard at the back of the room had these words scrawled across it: THOUGHT FOR THE DAY: INQUIRY IS NOT SOMETHING THAT YOU CAN TEACH, IT'S SOMETHING THAT YOU DO.

And they did. In the afternoon, the team participated in a "Bottle Biology" workshop. "Bottle Biology is doing!" were the presenter's first words, as he stood in front of a disheveled heap of plastic two liter bottles, and held up a bird feeder he had made. "What your students can do with bottles is only limited by the imagination." When he displayed a more complicated "EcoColumn," the Lakeview team began to whisper among themselves.

"That bird feeder is a great project for the "Habitats" Venture!" Gail whispered to Claire.

"Yes!" And we could make bird feeders suitable to birds indigenous to our playground! The students would have to research what kinds of birds are there and what they eat.

The ideas expanded. Ultimately, the Lakeview teachers decided to use Bottle Biology as a common strand through all the fifth and sixth grade Ventures. All students would make a bird feeder as their first project, and this would be a great motivator and unifier. But today these teachers would experience the process:

"I'm a kid. I want to find out what happens," Gail said as she poked holes into a plastic bottle with a nail.

Barb was thinking aloud as she worked diligently, trying to make the pieces of her bird feeder fit together. "The kids will love this. They'll bring in stuff, bottles. They'll work in groups. And they can put something about this in their portfolios."

"It's not perfect, but I like it!" announced Claire as she completed her bird feeder and started collecting materials to make an EcoColumn. "The students will have better ideas. We can let kids do it with different sizes and kinds of soda bottles. Let them come up with their own ideas. Use a grasshopper instead of a spider! Who Cares?"
In addition to developing a vision of the teacher's role as a stimulator and facilitator of exploration and inquiry, the team made further decisions about and major changes in the "Ventures" plan during the VISMT institute:

- The "Ventures" themselves needed to be flexible and open-ended so that teachers had options about what and how they will teach. Instead of this team planning student outcomes, outcomes would evolve from student-teacher interactions during the school year. In this way, the curriculum would evolve.

- The number of "Ventures" would be seven instead of the original thirteen—one for each fifth and sixth grade teacher. They would meet for one hour weekly and students would not change or rotate during the first year.

- Seventh and eighth grade would not be invited to participate.

The blueprint created by Gail and Susan at the SDI had been modified considerably; it felt more manageable.

Making decisions: Who will be involved? The next week, I rode to the VISMT Institute with Bonnie, the middle school principal, and Andy from Wyeth. Bonnie and Andy were eager to learn about the "Ventures" plan, and Andy especially wanted to understand Wyeth's potential role. What had happened a few days earlier at the faculty retreat, however, was foremost in Bonnie's thoughts. She explained that when Susan presented the blueprint for "Ventures" to the teachers at the retreat, the teachers understood that participation in the project would be mandatory for all fifth and sixth grade teachers. This drew a quick negative reaction from both Bonnie and some teachers. A fifth grade teacher had actually rolled her eyes at the word "mandatory".

Why? A mandate had recently come from the State Department of Education that the state's writing portfolio assessment would become the responsibility of fifth grade teachers this year. Although "Ventures" sounded exciting and Susan had presented it with enthusiasm, it sounded like yet another directive. Teachers were feeling overwhelmed. In addition, Bonnie was concerned about Lisa, the newly-hired sixth grade teacher. One new teacher had participated in the "China Contract" while adjusting to a new workplace. It was a difficult start for him. He did not return to teach the following year. Bonnie would not allow "Ventures" to be mandated. Andy listened intently, but without comment.

When we entered the large classroom, the Lakeview team was listening to a presentation about using rubrics for assessment. The presenter said that using rubrics for assessment helps students to (1) set standards, (2) make them clear, (3) participate in their own assessment, (4) be reflective about their learning. The Lakeview team was engrossed in taking notes and asking questions, nodding that the idea that kids can learn to design and use rubrics would become part of "Ventures." When the presenter finished, Gail, Claire
and Barb guided us to a round table where our meeting would take place. Gail distributed the group's "Action Plan" which contained goals for the project, and a one sentence summary description of each of the seven "Ventures."

Both Andy and Bonnie noted that some additional changes had been made since the June SDI: First, the planning team members had chosen which "Venture" would be theirs. Teachers not on the planning team would have to choose from the remaining topics. Secondly, ongoing planning was built in. The fifth and sixth grade teachers and Bonnie would meet bi-weekly to coordinate plans, support each other and make decisions. Wyeth would be invited to attend. Gail would be the leader/facilitator/contact person for the project. In addition, any language in the original proposal suggesting that it was mandatory for fifth and sixth grade teachers had been "cleaned up." Teachers were "invited" and "encouraged", but not mandated to participate. Bonnie expressed her approval of this, but Andy was concerned:

Well, let me back up for a second. If you include the element of teacher choice, then the students in those classes might not be able to choose to participate....you are giving the teacher the decision about whether or not to participate, but you're also choosing for the student.

What if the teachers did not all agree to participate? Wouldn't that be unfair to students? Besides, how could you plan effectively, when participation is ambiguous? In business, things are handled differently, and employees are often directed.

But more than anything, Andy wanted to understand Wyeth's role over time in Ventures. Although he hinted that Wyeth was willing to provide some financial assistance, Gail explained that there was no exchange of money planned between Lakeview School and Wyeth. Instead there was a need for people and knowledge. "We envisioned that when you came here, you would look at the Ventures and start getting people. Can you think of people who would partner with us?"

The vagueness of the plan posed some problems. "People want to know what they are committing to do." Andy asked for some more specific "general planning" because in business, resources need to be allocated at least a year in advance.

What I was thinking is that you could actually identify what will happen five years from now. You probably have a pretty good idea what it will look like, even without student input. Students will have the freedom to plan what to do within that, but you sort of set up this scope that they work in, a parameter, a budget you can work within you know...I see specific areas that we can contribute to, like architectural models, and towards some of the financial resources, the tools to do it.
Although Bonnie liked the idea that teacher participation in the project would be flexible, she also sought more specific plans:

Did you take each Venture and do a web to brainstorm all different kinds of things? I am curious as to whether you brainstormed all the types of things that might go into each Venture, and some of those things may happen this year and some may happen three years from now because someone might be looking for materials, money, support, whatever.

Gail, Barb and Claire responded that they had envisioned the specifics of each Venture to be more emergent than prescribed, based on student needs and interests, but agreed to try to present more details within a few weeks after Ventures had started.

The meeting closed with an optimistic note from Bonnie: "This looks good. This looks do-able. It looks more do-able than when we wrote the grant!"

Doing Ventures

Stakeholders Buy In

Teachers. Right after the August inservice, Gail telephoned me with the news. "All of the fifth and sixth grade teachers jumped on board! And they love the plan!" There had been no hesitation--no visible problems. Susan was pleased to take the Weather Venture, Lisa agreed to take Environmental Reporters, and Gail would stay with Public Relations. The Architectural Models Venture was deleted because nobody had the expertise, but Christine would team with Collette to do Landscaping. Besides commitment, there was optimism about funding sources for materials. They had talked enthusiastically about other partnerships that would contribute resources and they identified grants they would pursue; they were off and running!

School Board. Once the commitment of the teachers was secured, the School Board's approval was sought. The Board had enjoyed the public recognition the "China Contract" had brought to Lakeview School and valued it as a learning experience, but they were also aware that some parents had openly expressed concern about the time students spent outside of their regular classrooms. Gail, Susan, Claire, and Barb presented an overview of Ventures to the School Board at a regular Monday evening meeting, confident that the Board would approve the project. The chairman noted that it was a very ambitious project, but that it must not take away from the core curriculum. Because Ventures met only one hour weekly, because it was supported by the principal, and because the teachers were highly experienced, it was approved by the Board. Ventures could proceed.

School/business partnerships. Bonnie and Gail called a meeting during the first week in September for the purpose of updating and launching the business-school
partnership with Wyeth. Present at the meeting in the school library were Lakeview's superintendent, Wyeth's plant manager, the seven fifth and sixth grade teachers, four Wyeth employees, parents, a school Board member and both principals. Why so many people?

Wyeth and Lakeview School were discussing several kinds of partnerships. During the previous year, a mentorship program was established and coordinated by Lakeview's guidance counselor and a Wyeth employee. It had been successful, and plans for it to be continued and expanded were encouraged. Other Wyeth/Lakeview School partnerships included the use of the school's computer lab for the training of Wyeth employees, a joint effort to construct a fitness trail at Lakeview School and a fitness room at Wyeth, to be used by all Lakeview citizens, some joint management leadership training courses and materials to be shared by Wyeth employees and school personnel, and a joint Red Cross Blood Drive.

Within the context of discussing all of these partnerships, Gail explained Ventures and expressed the teachers' hope that Wyeth employees who have interests that align with the Ventures and would be given release time to come to the school to help. Gail acknowledged that this partnership is "different, not a simulation of Wyeth, but more of a match of interests." A nod of approval came from the plant manager, and Gail promised that there would be a letter sent to Wyeth employees to solicit volunteers for different Ventures by the end of September.

Parents and community. Every resident in Lakeview receives a free monthly community newsletter entitled "Lakeview About Town." An article was printed in the October newsletter explaining the Ventures project and the partnerships with Wyeth. In addition, the process of placing a student in a Venture included parent-assisted student choice. Students took home a written description of each Venture, in which parents were requested to discuss the choices with their child. Response from parents was positive. They liked the idea of students working to improve the outdoor environment at their school, and some parents had already volunteered to help.

Starting Strongly

Perfect! Everything had fallen in place even better than the Ventures planning teams anticipated. The project was embraced by stakeholders, and enthusiasm abounded. September was a bustle of preparation. A "Bottle Biology" workshop for the fifth and sixth grade teachers at the end of September (described in the introduction to this paper) was a "real turning point" (Gail) in building a spirit of teacher collaboration and enthusiasm that came to characterize subsequent fall meetings.
In mid-October, all fifth and sixth grade teachers met after school for the purpose of getting started in writing the Ventures curriculum. At this meeting, Gail presented a model she used in developing a curriculum for her own Ventures:

While encouraging them to use the language from Vermont’s Common Core content standards, she was careful not to dictate a method:

Everybody should feel that they can do what they went to do. Just kind of show the interconnectedness of it. You can have it as a work in progress. I have to do this. I have to know where I am going. So this is not in stone. This is just to get started.

The other teachers listened, but there was minimal response, and an uneasiness in the room. They had come to the meeting with different agendas. Instead of writing curriculum, they had "nuts and bolts" issues to be discussed: What will we send home on the report cards about Ventures? How will we assess student participation? Where are we going to get the wood to build the things for the environment that the students plan? Are we going to have a lot of after school planning meetings? Wyeth says that if we have a fund-raiser, they will match our funds; what can we do for a fund-raiser? When will we meet with the computer lab instructor about spreadsheets? How will we make up the lists of students in each Venture? Did we get the guest speaker for our Kick-off Venture? Although Gail wanted to talk about writing curriculum at this meeting, doing so was premature.

Afterwards, she pulled me aside and quietly explained why she had jumped ahead to the stage of writing the Ventures curriculum. She would be leaving her job at Lakeview School within a month; Ventures would need a new leader. Gail's impending departure was the first of several unanticipated circumstances that would change the shape of Ventures.

Adapting to Changes

Changing leadership. Without hesitation, Barb and Claire agreed to assume the leadership of Ventures together. Because Gail did not leave her teaching position until
December, there was a six week transition of leadership. The teachers decided to make changes in who would lead which of the Ventures: Barb would do Public Relations, Lisa would do Fitness and Gail's replacement (Melissa) would do Environmental Reporters. These changes were made amicably. In January, Bonnie noted the smooth transition:

I feel very, very comfortable. Gail was really good about giving up while she was still here, and Barb and Claire have a very systematic way of doing things. We have a weekly meeting, they keep me up to date on things. They are extremely organized and everything is spelled out...I think the leadership, the transition has been no problem at all.

It appeared that Ventures would happen as planned.

There was a second unexpected change in leadership, however. Claire became ill and had to leave her teaching position for four months. Barb would do it alone. In March, I asked Barb how it was going at the helm of Ventures. "It's hellish...," she whispered, and then told me about other things that happened.

Funding that did not happen. Lakeview School applied confidently to VISMT for another grant that would extend and support the Ventures project. In January they learned it was not funded. The Ventures teachers and Bonnie were upset by this news. "We need technical support from VISMT...and now that we're not funded, I wonder if we can have that." They valued their relationship with VISMT as much as the financial support. Bonnie noted, "It's like when we need someone or information, VISMT just says, 'here,' and they provide it in addition to the grant. We still need that kind of support."

Other funding sources or resources for materials were rejected or abandoned: a $2000 EPIC grant written for materials was not accepted. Claire and Barb started writing a grant to Toshiba for graphing calculators; the writing was not completed after Claire left. When VISMT loaned graphing calculators for use in Ventures, the calculators were not used.

Partnerships that did not happen. One business, Hamelin's Garden Center, sent a representative to speak with the participants in the Landscaping Venture in early fall. Otherwise, there were no school/business partnerships. Wyeth Nutritionals did not participate in the weekly Ventures, nor in any of the partnerships that were discussed at the September meeting. The idea of providing volunteers to help with the Ventures did not happen, until the culminating event, when Wyeth employees chaperoned a field trip to the Audubon Center in June. In addition, one Wyeth employee was paid a stipend to help to organize the culminating field trip. Was it the change in leadership, the nature of the project, or lack of communication? Each of these were a factor. Somehow...the year just slipped by:

I think the biggest disappointment has been that we have not had the Wyeth
employees. That never happened...when I left in January it was going to happen, and Andy...was talking about release time. But there was never a specific time, and maybe because our project was once a week they thought these employees were going to leave all the time. What happened is we got nobody. It never really got off. (Claire)

The Good News Is...

...that Ventures not only survived these setbacks to their original plan, but also flourished. It started for students on November first with a "kick off" guest speaker, and with each student making a "bottle biology" bird feeder. They continued weekly through June, culminating in a Guest Speaker Day, outdoor activities, and a well-planned field trip to the Audubon Center.

On most Fridays at two o'clock, students darted through the hallways and into the classroom where their chosen Venture would meet. From there, they became engrossed in activities and projects they had chosen. What would happen for students that day would be as varied as the number of Ventures! On some days, I found students in the hallways, working on graphs and maps, collating data, interviewing each other for the "Ventures" newsletter, preparing displays in the school's front showcase. Inside the classrooms, activities varied from watching a video, to planning a "dream garden" to ordering seeds from a catalog, to researching environmental issues, to going outside to measure the snowfall. Always, students were engaged in their activities and could articulate the purpose of what they were doing, relating it to Ventures' goal of creating a better outdoor environment.

In May, I arrived to find students and teachers outside, wielding hoes and shovels. Collette and her students from the Landscaping Venture, along with some adult volunteers, were planting vegetables, wild flowers and trees, and creating box gardens. The Fitness Trail had been cleared on the previous Friday by a hard-working brigade from the Fitness Venture, who were on this day planning and practicing a relay race on the trail. Claire and her students from the Bird Habitat Venture were sitting quietly in a circle on the green grass apart from the commotion, "practicing listening for bird sounds." The sentiment, "I picked the best Venture," was echoed by several students in different Ventures.

Integrating subjects: "You get the feeling of math" The students did not know about the parts of the overall plan that did not happen! They did know that what happened for them was good...and that the learning felt different in some ways. When I asked students what subjects were taught in their Ventures, their responses suggested that Ventures were not defined as subjects:

Oh, gosh, everything. They're mixed. There's a lot of writing, and some math.

You get the feeling of math. I don't know. It's kind of strange. We're doing a lot of
writing because of the newspaper, and we're doing a lot of reporting and interviewing...You don't really think of it as being taught a certain subject. You don't think of it. It just comes. We made maps, and that helped with my math. I did not know at the time that it was helping me with math. It just happened. (6th grade girl)

One fifth grade boy expressed the significance of working on a unified project for the school:

It's a little different because you are learning for the whole school, and whatever you do in there will be for the whole school. And that's not the same as in a regular classroom.

Ventures also had its student critics. Students suggested some concrete changes: They generally liked that it was once each week, but felt that one hour was too short and wanted more time. In March, many students expressed frustration with not spending more Ventures time outside, and others simply felt that things were proceeding too slowly:

...the teacher said that the sole purpose of Ventures is to change the outside playground. And so far, besides making maps, we haven't done anything. I would get more into finding materials, or figuring out what we are allowed to put out there. I want to get going on it instead of just hanging around doing this stuff (i.e., research reports). (sixth grade girl)

Vermont's lingering winter and rainy spring thus impacted the project's focus on creating an outdoor environment.

Without exception, each student I spoke with liked doing Ventures. A sixth grade girl found the self-evaluation rubric used at the end of each Venture to be an empowering and valuable departure from traditional assessment:

It is different because you get to do stuff that you don't get to do in school, like self-evaluating yourself...You get a sheet and it has one, two, three or four, and it has three different categories, and you circle from each one, cooperation, or on task or activities. And how you think you did...I think kids tend to see themselves different when they self evaluate--different from when a teacher evaluates them. I think some teachers don't understand how much work the kids put into it because they are busy with other kids. I think kids understand it better.

These students did not know about the partnerships that did not happen, the technology they did not get to use, nor the materials the teachers envisioned buying with the grant money they did not get. Yet they recognized their Ventures experience as a different kind of learning that is meaningful, motivating and empowering.

Teaching Ventures: Commitment and collaboration.

For me, the strength of Ventures is seeing the collaboration amongst the fifth
and sixth grade teachers. That's the number one strength. And then the collaboration carries over to the students. They see the teachers working together, and then hey work together. (Lisa)

What happens when the going gets rough? In this case, the teachers pulled together because of their individual and group commitment to improving learning for Lakeview students. Although each teacher had previously participated in integrating curriculum in different ways, interviews and observations of their Ventures-in-action reveal a shared vision and approach to learning characterized by: (1) a wide variety of materials and learning options, (2) learning opportunities for individual students that address different interests, abilities and learning styles, rather than addressing the "average" student, (3) integration of subjects into the entire curriculum around a common meaningful goal, so that learning is connected, students are motivated, and have a positive experience, (4) students and teachers having opportunities to make their own decisions and to select learning activities according to their needs and interests, (5) self-directed discovery (i.e., "inquiry") and investigations being valued as a powerful and effective method of teaching and learning valuable concepts, (6) placing information in a context that has a meaning for students and helps them to understand how significant data relates to their lives, (7) teachers investigating with their students, providing a model of the lifelong learner.

In May, after Claire returned from her medical leave, she noted

I think it's gone really well, except for the stoppings. If you had to observe any one of us (teachers) in our Venture, we do above and beyond what we are supposed to do. I don't think anybody is a slacker in our Venture. It's the kids that keep us going. The kids are learning things from it. They really do like Ventures.

In spite of the setbacks, the teachers decided to continue Ventures during the next school year. Ventures continues.

Conclusion

This story could be told differently. It's the "is the cup half full or half empty?" question. In this case, their cup is overflowing when the learning that happened for both teachers and students is considered. Did everything happen that the teachers planned? No. And some things that did not happen were admittedly significant. If the original goals of the project are the measure of success, then the cup is nearly empty.

Questions about grant funding arise from this study. Was their original plan too ambitious for one year? They had originally asked for three years. What happens when only one part of a vision is supported by funding and teachers commit to continue with most of
their idea? Is it fair to ask them to fragment their original plan? Does the grant application process set schools up to create unrealistic plans, in order to compete for and to secure funding? Are grantors cognizant of the realities and complexities of daily life in our schools, including the many demands made on teacher time?

The reader of this case study might consider the main theme to be what happens when the leadership of a project changes. The situation is far more complex than a case of changing leadership. Lakeview School's experience portrays the kinds of things that happen during a year in a dynamic school system, and how teachers committed to a vision did the best they could with the hand they were dealt.

References


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</tr>
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<tbody>
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<td>Author(s):</td>
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</tr>
<tr>
<td>Corporate Source:</td>
<td>Funded by Vermont Institute of Science, Math and Technology</td>
</tr>
<tr>
<td>Publication Date:</td>
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