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Teachers' Instructional Practices in Small Classes

Smaller classes have several immediate contextual benefits for teachers, but do they result in changes to instructional practices? Results from a study of 17 small grade 1 classes indicate that teachers used these contextual benefits to support a variety of grouping practices; individualization; active learning; integration of reading, writing, and speaking; and students' personal skill development in a creative and integrated curriculum. Some used an overall program format and adapted instruction for individuals and groups, whereas others designed for children's individual and social development and integrated this in their daily plans. Instructional practices were best described as fluid and holistic, complex, and multitask, and aimed at literacy achievement.

Une petite classe comporte plusieurs avantages immédiats et contextuels pour les enseignants mais il faut se demander si elle provoque des changements dans les pratiques pédagogiques. D'après une étude de 17 petites classes de première année, les enseignants profitent de ces avantages contextuels pour appuyer diverses activités de groupe; l'individualisation; l'apprentissage par l'action; l'intégration de la lecture, l'écriture et l'oral; et le développement de compétences personnelles dans un programme d'étude intégré et imaginatif. Certains enseignants préparaient un programme global et adaptaient leur enseignement selon les élèves et les groupes alors que d'autres planifiaient leurs leçons en fonction du développement individuel et social des élèves. Les meilleurs qualificatifs pour décrire les pratiques pédagogiques à l'étude sont: fluides et holistiques, complexes, multitâches et axées sur la littératie.

In the Tennessee Project STAR (Student/Teacher Achievement Ratio) study on small class size, Word et al. (1990) found that students in small primary grade classes (13-17 students) in all subject areas significantly outperformed students in regular classes (22-26 students) with and without teaching assistants. The findings illustrated that small class size was associated with enhanced student achievement, but as Finn and Achilles (1990) acknowledged, the reason for this relationship was unclear. Subsequent studies have sought to explore the relationship between class size and achievement by studying teachers' instructional practices.

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Small Classes and Instructional Practices

Researchers in both the STAR study (Evertson & Randolph, 1989) and the California Class Size Reduction (CSR) study (Bohrnstedt & Stecher, 1999; Stecher & Bohrnstedt, 2000) found that teachers did not significantly change their practices when they moved to working with smaller classes. Teachers' content coverage, grouping practices, and pedagogical strategies remained essentially the same. Evertson and Randolph saw the STAR outcomes as being the result of a strict skills-based curriculum, and Grisham (2000), commenting on the CSR results, similarly speculated that it was due to a "homogeneous curriculum with little room for differentiation and experimentation" (p. 4). Bohrnstedt and Stecher saw no clear theory as to why teaching should be different (p. 16), whereas Achilles (1999) proposed that teaching may not differ because small classes give teachers the opportunity to put into operation good pedagogical practices, beneficial in any teaching situation.

In the Wisconsin SAGE (Student Achievement Guarantee in Education) study, Molnar et al. (1999) found that although teachers assumed they were teaching differently, observers saw few discernible differences between large-class and small-class instruction. From follow-up interviews with the teachers they concluded that although these teachers still used teacher-directed, whole-class activities much of the time, it was the quality and type of individualization used by the teacher that made the difference. From subsequent studies, Zahorik, Molnar, Ehrle, and Halbach (2000) proposed that the difference lay in the goals of the teacher, the quality of classroom management, and the pace of instruction. They found that the more effective teachers focused on "teacher-directed, basics-oriented individualization" (p. 72), a reasonable versus slow pace of instruction, and good classroom management strategies. Hence although class size has been shown to be a factor in students' academic growth, there is some question about the types of instructional strategies that teachers in small classes employ.

Purpose of the Study

The project examined the effects of three interventions: small classes of 17 or fewer students; a focus on literacy achievement; and continuing professional development opportunities for teachers on enhancing the literacy achievement for grade 1 students in 10 Edmonton Public schools in high-poverty, high-transience environments. In terms of students' literacy achievement over the six months of the project, the students showed substantial academic growth (Haughey, Snart, & da Costa, in press) although their year-end test scores were not significantly different from those of students in previous years. This article focuses on the particular instructional practices used by teachers in response to the question: What was the influence of small classes on teachers' instructional practices? We were interested in whether the continuing professional development opportunities and the small classes would influence teachers' practices. Teachers who move from large to small classes have been described as moving from a whole-class management approach to one where the whole-class approach is interspersed with individual instruction (Zahorik, 1999; Zahorik et al., 2000). We wondered if the teachers in this study would follow similar practices.

Context

Alberta government funding was made available to Edmonton Public Schools in December, 1999 and a research study was a condition of funding. Ten schools were identified and principals immediately reorganized grade 1 classes, sought additional classroom resources, and hired staff for a January opening. All schools had low enrollments (95-270), high transience rates (30%), and had been built before 1966. In all, 17 grade 1 classes were formed. Minority children in these classes were predominantly from First Nations (25%) and South Asian (26%) backgrounds. Class sizes, which had varied from 19 to 33 before the intervention were between 9 and 15 students, but high student transience meant that consistent figures were difficult to compile. Most of the principals were able to assign experienced primary teachers to the project. Of the 17 (16 female, 1 male) teachers, 10 had over 10 years' experience, five had one to five years, and two were novices. The novices had been interns or substitute teachers.

Method

Teachers' instructional practices are notoriously difficult to study (Brophy, 2000). In a review of research strategies for measuring teachers' practices, Mayer (1999) notes that the reliability of surveys is low, and the studies do not capture the quality of the practices. In the SAGE studies, Molnar et al. (1999) and Molnar, Smith, Zahorik, Halbach, and Ehrle (2001) collected data through a combination of "teacher interviews, classroom observations, teacher logs, and teacher questionnaires" (Molnar et al., 1999, p. 173). Although the observations provided information on general aspects of teaching and teacher behaviors such as individualization, discipline, hands-on activities, and instructional time (Zahorik et al., 2000), the interviews were the most useful in providing teachers' descriptions of how their teaching had been affected by the small class size. We also opted for a design that allocated precedence to teachers' descriptions and explanations. We interviewed teachers individually in their classrooms twice and held monthly group meetings to discuss what was happening in their classes. As part of the larger project, we also interviewed 10 principals, 12 parents, and 21 students.

The individual teacher interviews in February and June each lasted about 60-90 minutes. Teachers were asked to describe their present practices, to compare them with those used in larger classes, to identify the effects of the small class size, and to outline their teaching philosophy. In each case the interviewer probed for meaning and examples. Teachers used the opportunity to show samples of students' work, discuss their teaching strategies, and describe their own learnings about their teaching. The questions were generated initially by the team and then brought to a teachers' group meeting for advice. During these monthly three-hour group meetings, teachers talked about what they were doing and described recent situations that had occurred in their classrooms (Haughey, Snart, & da Costa, 2002). All teachers and the university researchers participated in these sessions. Teachers brought materials to share and proffered advice and assistance to each other. In addition, most teachers opted to provide a detailed case study of their work with a single child that documented the child's social and academic development.

The interviews and group sessions were audiotaped and transcribed, and the teachers received copies of their own interviews for changes and verification. We coded the first set of transcripts individually and then checked our categories together and settled discrepancies. All the data were sorted under these categories, reviewed for patterns and themes, and the results shared with the teachers for verification. There was a high level of congruence between the descriptions of teachers' practices from the individual interviews and in the group session. These were also corroborated in interviews with the principals.

Constraints on the Findings

This provincial government-funded project ran for only six months (January-June, 2000). The research design had to complement the decisions schools had made in forming small grade 1 classes and assigning teachers. In terms of their instructional practices, six months is a relatively short time for teachers to make major pedagogical changes. All teachers attended the district's biweekly professional development meetings on literacy achievement, which included in-class feedback sessions with a consultant. Hence most of the classrooms had similar resources, and teachers were encouraged to use similar instructional strategies for literacy achievement. In such circumstances, and without prior data about teachers' practices, we could not attribute changes in instructional practices to class size. However, we believe we were able to document the teachers' changing understandings of the effect of class size on their practice.

Contextual Effect of Small Class Size

Teachers' instructional practices occur in a particular context, and when the context changes, the instructional practices may change only in relation to these aspects rather than in the practice itself. The teachers identified five contextual changes that related directly to class size. These were the physical effect of a small number of learners in a regular classroom, the social effect of the reduction in noise level, the change in classroom management, the increase in instructional time as time spent on routine administration and discipline decreased, and the positive effect on their own professional and personal morale. Although these changes are closely associated with smaller classes, they are not instructional changes.

These conditions provided the context for the grade 1 teachers in this study. In our February interviews, teachers talked about either adopting practices or reverting to instructional practices that they knew worked well with small classes. Initially, many could not say that they had consciously changed their practices as their orientation toward primary children and their teaching philosophy remained the same. Their predominant goal was to help these students reach grade 1 level in reading and writing by the end of the year. The extensive professional development on the district's version of Balanced Literacy had not required them to change their instructional practices, but rather gave them a vocabulary and helped them improve their teaching strategies. Gradually, over the course of the project, most began to speak about how their understanding had changed and how their teaching was different. Sometimes teachers varied in their responses, and care has been taken to ensure that the full range of teachers' comments is included.

Instructional Practices

From the data we identified five themes pertaining directly to teachers' instructional practices: a focus on individualization; a richer, more creative, and complete curriculum; active learning; the integration of reading, writing, and speaking; and students' personal skills development.

Individualizing Their Teaching

> I know where they're standing and I know where to pull them to next and I know that for each of them. And it's different for each one of them, too. [The small class size] buys me more time to meet individual needs and to respond individually to each child.

This teacher's comment reflects the most frequently mentioned opportunity the small class size gave to teachers, to individualize their teaching. This process was a complex combination of monitoring, assessment, attention, and feedback. The cycle was ongoing for each child and in every subject, but related especially to their oral and written language skills. This teacher's description reveals this combination.

> I can get to everyone and it gives me a chance to make a private or a personal comment. I'll say, "Do you really need that capital letter right in the middle of the word?" Or, "You have all the right letters but check the order that they go in. See how the s is first and the n is last." Or sometimes they get their letters reversed and upside down. So, you have the opportunity to be with each one of them for, even if it's just a minute or two. You're able to respond individually to each child's particular need. *And much faster.* You can get to them all. And that's the real beauty of the small class size is that you do have time for each one.

Monitoring occurred at three levels: through general oversight, guided group work, and individual performance. The children's increased visibility in the classroom provided more opportunities for the teacher to diagnose activities and focus on specific children's needs. In terms of assessment, the teachers were immediately able to determine whether the child was on task, and using their repertoire of skill sequences, they could assess the level of the child's work. Some teachers kept running notes on children's performance.

> So I'm able, while they're working at centres and so on, to individually find out what each child is doing, which words they know, and then I can record the date that we do it and how well they're doing. I can also make notations of what words they're saying and I keep track of those.

They actively monitored each child's progress, focusing on the social and emotional as well as the academic needs. Because they had more information about individual children's backgrounds, personalities, and learning styles, they were able to use this information to provide a more appropriate response.

They attended to children directly, providing encouragement, support, correction, challenge, and practice. Many opportunities for focusing attention and determining where additional instruction was required stemmed from the teachers' ability to scan the class frequently and then follow-up with individual attention.

> You can get right into the meat of it with fewer kids. You can get right down to where the problem is. For example with Michael, I know exactly where the

> problem is and I can work with him and give him some idea of success, instead of, "Well, I can't do this. I'm stupid. I can't do anything."

They were able to identify not only children who needed additional assistance, but also those who were inclined to drift or to wander from their tasks. Having smaller classes meant that teachers had increased opportunities to spend time with small groups of children who needed their attention. One noted, "I can get to them when they're struggling. I can see that they need me to come over and help them move the manipulatives." They were able to stay and work with individual children or move on and talk to several groups depending on the children's needs. The teachers recognized the value of increased attention. For the class, teachers found that it provided stability, reduced competition, and increased the students' feelings of being noticed and cared for. The opportunity to work with individual children meant that the teachers were able to monitor, assess, attend, and correct the children's work quickly and unobtrusively.

Closely related to providing attention was the opportunity for immediate feedback. This provided positive support for the children, encouraging them to proceed and eliminating time spent in frustration. Two teachers explained the benefits.

> I can encourage and correct the errors right when they're happening. I don't have to wait and correct them after school and then go back over it. I can show them. I can fix their "A" or how they can keep that on the line. I'm able to, for example with Joshua, I'm able to correct his language. When Michael writes—"Him has no sweater"—I'm able to talk to him then about that.

> You also have more time to review, to make sure it's really sunk in. During math a lot of the times I'll pull two or three to do guided reading also, or else I'll pull one or two to just target a math concept that they're not quite getting.

Having more opportunities to listen to the children's stories meant that there was increased trust between the teacher and students, and the children were more open about themselves and their situations. The teachers knew the children better and could handle situations more appropriately: "So I feel like I know the kids a lot better and I feel like my planning is now more focused and is more appropriate to each child."

The teachers' focus on individualization was reflected in their planning. They described their planning as more individualized, and because they had more detailed knowledge of each child, as more accurate and specific.

> You know, you don't have any less planning. You probably have more planning now, because you're kind of individualizing it for each child. But I think that their learning capacity and their ability to handle it is enhanced.

They planned activities to include the range of abilities and aptitudes in the class and designed specific strategies for individual children or groups of children to ensure their success. One noted, "I'm able to look at individual children and plan, if not individual strategies, then individual activities for the children," and another acknowledged, "even though I'm trying to individualize instruction as much as I can for each student that doesn't mean that I'm running 14 programs because I'm not. What I'm doing is adjusting my program to the needs of individual children." Although some focused on adapta-

tion, others saw it as combining different strategies. "I know I spend way more time planning now than when I have a larger group because I'm planning for many more individual children and small groups of children and trying to integrate that throughout the day."

As strategies showed success, they found themselves seeking other strategies for ensuring that the child would continue to grow. As they came to know more about each child, the extent of individualization expanded. One concluded, "So that's where your planning changes and you take more risks," and another explained:

> Because I have only 17 children, I know really exactly where all children in the class are and what their needs are and what their strengths are, so my programming for that small group that I work with-and I work with at least two, maybe three small groups a day-it's much more specific. It's much more frequent and it's of a higher quality, because the interruptions are fewer.

Unlike Korostoff (1999), who found that whole-class instruction predominated in the first-year CSR classrooms she studied, Zahorik (1999) reported that individualization was the most noticeable instructional strategy in the Wisconsin SAGE study. In that situation the teachers did not change the curriculum to suit the children's needs, but most often used "analogies, examples, demonstrations, and tasks" (p. 52), and frequent checks on the students' progress. This occurred in a whole-class orientation where students were to listen and obey rather than problem-solve, make decisions, or be creative. Based on more recent data, Zahorik et al. (2000) have described the individualization used by effective reduced-class-size teachers as focused on the students' construction of understanding rather than on reproducing the correct answer. In the CSR results (Bohrnstedt & Stecher, 1999), grade 3 teachers regardless of class size indicated that they spent about the same amount of time in one-on-one instruction. In comparison, the teachers in this study spent more time in one-on-one and small-group sessions. Some described how the time was used to foster children's problem-solving strategies. Their professional development literacy program encouraged the use of small groups, and from the descriptions of their days, these teachers spent limited time in whole-group activities.

Achieving a Richer, More Creative, and Complete Curriculum

> It provides so many more opportunities to learn beyond the constraints of the curriculum. Literacy, learning to read and write, is the big job in grade 1 and it is. It's so fundamental. But even more fundamental than that is learning to think and learning to think for yourself, and if you are in a situation where there is someone who can guide you in the thinking process and can pull your thinking beyond what you have to know to what is possible to know—[it's even more important].... There's so much that our brains and our minds and our spirit are capable of that if you can teach them to think beyond the obvious and to think in a creative fashion, then that spills over, again, into everything.

As the teachers discovered that they were able to accomplish more during a class, they branched out to enrich the curriculum and extend the children's learning. There was more time to explore ideas, to link different subjects together, and to implement a more holistic curriculum design as the teacher above explained. Their concern for curriculum accountability diminished as

they found that they would be easily able to include the required grade 1 content before the end of the year. They felt comfortable in taking time to respond to teachable moments. This was also a source of creativity for them as one teacher explained:

> Well, for science we've done a lot more planting than I ever did last year. And art you can get into really interesting projects. Language arts we do a lot more writing. We publish a lot of books here. So it just seems to be the little extras. Like we still cover the curriculum and everything, but you're allowed [the time] to go into much more detail.

This additional time caused at least one teacher to reflect about the additional room for creativity. "This is actually one thing I've been thinking a lot about. Do we squelch kids? You know, before we wanted everybody doing things together, whereas now they don't have to all be doing the same thing all the time." They described projects that had arisen spontaneously such as when a child asked a question that led to an immediate lesson. One teacher described it as not being "so structured. So often a child will bring something up and we do a whole unit right there, because somebody said something."

Teachers experimented with cross-curricular integration or the addition of activities that refined and deepened the learning objectives. One teacher explained that there was "way more cross-curriculum [integration]" and two described examples of these activities, one using text and the other video.

> It's more integrated than not. It is very heavily language arts based. So usually when I teach social studies or science, we do it through a group that works with books, we do lots of hands-on things and the written part that would go with that would be during centre time.

> I'm on my third research project. Usually I do one. They're really based on my language arts—but they stretch into my science. They've been on animals. So I felt that's quite different than what I usually do.... You work for three or four days before they can write about beavers, because you've got to give them all the background. They don't watch the nature shows with somebody sitting beside them and talking about it [at home], it's on their own.

Zahorik (1999) reported similar early completion of curricular goals for the SAGE project, but in that situation teachers did not use enrichment but instead "provide[d] the established content for the next grade" (p. 51). In this study, teachers both adapted and individualized program content and enriched program goals.

These teachers were able to put aside the notion of *covering* the curriculum as a goal to be achieved and instead recognized that its specified knowledge and skills are to be used as means to choosing challenging activities that hold meaning for the students and the teacher. They talked about how this affected their planning. One noted, "It's exciting, because you get to actually do some of the things that you want to do in teaching. Before, you couldn't do them. They weren't successful, and so you had to modify everything." As they explored what took up their planning time, the importance of examining the finer points, the details in a lesson or activity were discussed. One explained that before she had not been able to organize, "not in the detail that I'm able to do it now," and another noted, "I'm more aware of the smaller steps, more aware of

the fine-tuning of each of the smaller steps." One went farther in her thinking, explaining that it was not only because there was more time, but more important, "it's because you change everything you're doing and you do more." In contrast, one teacher couched it in her standard program, noting, "I still do a lot of the same things, but you can do it better, do more of it, do it more often."

They chose activities with their importance to the students in mind, but also organized them in ways that enabled the students "to draw on multiple sources of assistance in achieving their goals and in mastering the means needed in the process" (Wells, 1998, p. 8). They sought to use their creativity and to encourage it in the children through a variety of activities.

Using Active Learning

> There's a lot of hands-on learning. We were able to go outside in the winter—for instance, when we were talking about seasons—and we went outside and did different experiments where we set a thermometer in a box and we all worked together to cover it with snow.... We brought a big blanket outside and we used it like a parachute. We all went under it and sat like that and then we breathed under it for a little while and saw how long it took to warm it up, even though there was snow on the ground.... And I think if they didn't have that hands-on experience and they only read the results, then I don't think they'd learn it as well. How can you explain to a grade 1 just on paper, just through books?

Teachers used experiential learning activities that enhanced opportunities for the children's language development. They described using many hands-on activities as part of or to extend learning opportunities for the students. These activities included movement in the classroom, usually at centres and often on mini-field trips outdoors, as in the introductory quote. They gave us many examples: "When we did our measurement, the kids can actually go and measure the classroom and they can be in groups doing these different things" and "in science we did a unit on magnets, and they could take the magnets and go around the room and be out of their desks and move around." One teacher pointed out, "that's better for their learning too at that stage of development," and another saw the benefit as "everybody had more access. I don't know last year if every kid measured. This year every kid measured."

The children had greater access to a variety of materials and had more opportunities to practice group and sharing skills. The teachers described how these activities encouraged them to work through procedures and so enhanced their ability to follow instructions and keep to task. The activities in turn prompted more discussion and encouraged oral language skills. In one example, the teacher monitored what children were thinking when they were building with boxes and saw how one child transferred ideas from his reading to his pretend house. He began to build a house and explained to the teacher that one room was a tea room.

> I just love that because it showed he was really thinking. He was thinking about all the different things [in the story]. In the book there was a breakfast room and he had a tea room. See, the room is made from a Lipton tea box! So it's sort of like taking them to higher levels of thinking.

The teachers saw the focus of hands-on activities as a way to help children better understand the concept and sequence they were teaching, to see for

themselves and experience the learning rather than having to accept the teacher's word. This teacher was teaching sequencing and designed experiences to help the children understand the concept:

> We're going to read "The Gingerbread Man," and then we're going to make gingerbread men and we're going to sequence how we made them, how we followed the recipe, put it in the oven, things like that. And they'll learn sequencing like that: more hands-on.

Zahorik et al. (2000) reported generally similar findings, but found that the hand-on activities were more closely tied to the teacher's specific goals than to student interest. The teachers in this study seemed to integrate their emphasis on literacy acquisition with their knowledge of the personal interests of the children.

As Dewey (1938) pointed out, not all experiences are equally valuable for learning. Concrete experiences are considered the most valuable and may be part of a project approach (Katz & Chard, 1989), or what Wasserman (1992) termed "serious play": a form of experiential learning that achieves intellectual development through physical activity built on creativity and inventiveness. The teachers in this study sought to use hands-on experiences to motivate children, to encourage their creativity, to help them conceive of abstract concepts, and to relate learning to their own life-world.

Integrating Reading, Writing, and Speaking

> Yesterday we made applesauce and they actually cut the apples with a dull knife. And we took pictures of every step, so now we're going to make a book from that. So each person, or each group of two, will get a picture and they'll write sentences about it. And then we'll edit the sentences.... We make a lot of books.

Teachers' practices involved a sequence of oral and written work from planning and then doing an activity, discussing and then writing about what had occurred, to then making big books and reading about their experiences. One teacher described her use of the cycle of sharing, writing, and reading to obtain reciprocal gains in all three aspects of literacy acquisition:

> We did "Other Canadian Families" and there's so much more you can do, instead of pencil and paper work. One of my friends came in. He's from Africa, so he wore his traditional dress and he taught them how to play the drums and he taught them about Africa. And they were surprised; they were just fascinated the whole day. He played soccer with them. So they got gym in there, they got art, they made their own drums, they learned to drum, they all drummed together. We took pictures throughout the afternoon, and then they took those pictures and wrote a book. We've got so many things in there.

The teachers in this study used a variety of designs for instruction; some were specific to certain subjects; others depended on the rate of progress of individual children. Sometimes they planned to have multiple options available and multiple activities taking place at the same time; at other times they used a large-group format with some individualization for enrichment and for those needing additional support.

Most teachers used groups as the basis for their instruction. One noted that after teaching large classes, "I had to learn a bit again about grouping. Because I grouped them one way and it didn't work." Eventually, she discovered that "The good way was to make the actual work station groups heterogeneous rather than having all the strong kids together." Another teacher described her four base groups as "pretty much diverse. I have a good mixture, so they can learn from each other." Another noted how this provided opportunities for diverse tasks with the same goal:

> I can have four children at their desks, four children at a table doing something, four children working at the board, and three or four children working in a group, say at a game, a math game that's accomplishing the same goal as what the children are doing at the board and at their desks.

They described their teaching with groups as also having changed.

> How have I changed my grouping? I teach within the group. You know? I can actually sit with the group and be teaching, whereas before I had ... them very systematically set up and I would be busily making sure they were being on task.

Teachers spoke about spending extended periods of time from 20 to 60 minutes a day with the children in the small group: "Every day I work with a group of three children, so every day three children get an hour with me as a group." One teacher described her focus as making sure "that they're learning what they're supposed to be learning." She did this through asking higher-level questions. "I say, 'How did you come to that? What did you do to get there?' It is developing the students' metacognition. But I learn more from asking those questions. I've learned so much about how kids think."

Although some teachers had always included centres in their instructional plans, others commented that they had moved from a large-group structure for teaching to a centre approach. Some used the centres for discovery and assimilation of concepts, whereas others used one centre for teaching and the others for extensions of the topic. Depending on the subject some used groupings rather than or as part of their centres. One noted, "We do a lot of centre work with language arts. So when I'm here with four or five of the kids, the other kids are working at three to four different centres." Another described a similar situation: "I'm finding that in language arts especially, I can plan for different types of centres for them to work at and I know that they're going to be able to handle them with little difficulty."

Many used small groups to cluster and then teach children who needed additional support.

> The way that I have the program set up, every child works with me for a very small time every day individually, and then I have the children in groups for language arts, and two or three times a week, that group of three children spends an hour with me. And that's where I can meet individual needs or help them along in their writing or their reading. I can build a lesson based on what I've seen in the past time that I've worked with them, or just from looking and observations that I've made in the classroom. It's a time of very focused work for us in a very small group.

The smaller class size encouraged teachers to risk designing activities where students had greater freedom and choice. Their comments ranged from "I've

noticed partner work and group work has really been possible now," to declarations that "Certainly, there's been lots of times where we've done things I wouldn't have attempted in a class with 30." Teachers saw this as taking risks: One commented, "I think that I'm doing different things, like I'm a little bit more risky and I'm doing things that I wouldn't necessarily have done before because of the management again and the numbers." Another concluded, "And in planning I take more risks." For one teacher, field trips with few volunteers and large numbers had been out of the question: "But I couldn't take them on a field trip, because there were too many and I was too frightened." Referring to the biggest change in her practices, another teacher concluded, "[It's] that you take more risks."

These risks were reflected in the variety of designs for learning they used including plenty of group work to foster independent learning skills in the children and encourage them to feel more in charge of their learning. Group work was supported by a series of routines that helped the children move smoothly from one activity to the next and handle most difficulties that might arise.

As part of descriptions of activities, many teachers mentioned the increased opportunities for focused discussion and the continued development of specific language skills as part of that process. They used discussion to enhance description of experiences, to enlarge vocabularies, to monitor children's language use, and to expand their repertoire through further activities such as role-playing, drama, and readers' theater. Oral discussion was often the precursor to writing and the making of books for reading aloud.

Similarly, teachers embedded writing development in activities geared to meet their overall goal. They moved from structured situations where they gave the children many cues and modeled the activity to those where the students had the freedom to choose what to write. Some teachers encouraged children to write to their parents, who then heard the child read the sequence and sometimes wrote a response for the child to read with the teacher. This not only fostered closer parent-child-teacher relations, but also provided many opportunities for the children to test out and confirm their reading ability. One teacher had been able to incorporate word-processing as part of her program for writing development. The making of books was much in evidence. This provided a focus for writing, as well as a reminder of the experience and an opportunity for students to read about themselves.

A number of researchers point to the importance of language in the creation of knowledge, suggesting that understanding is the outcome of a dialogue between people who are attempting to make meaning of some activity (Scardamalia, Bereiter, & Lamon, 1994; Wells, 1998). For the teachers in this study language was essential to the development of knowledge in all areas of the curriculum. They guided children in sharing their ideas, in advancing their meanings for texts, and in proposing resolutions to problems. Guiding involved being both teacher-directed and allowing the children the freedom and respect to bring up their own suggestions. It included scaffolding, providing that link between what the child can do alone and with assistance, using guided prompts and guided practice.

Supporting Students' Personal Skill Development

> I have a little job chart and I post a job for each child. They each have a little job to do and then we have a sharing time, just to go over the calendar. One of the first things that they do in the morning when they come in is they hop over to the chart to read who's doing what. I also have a "Who's Here?" graph and a card with their name on it and a photograph on the opposite side. So they have to report on the chart, turn the card around and say that they're here. And I discovered that learning to read the names is a good thing, that it gives them a [resource]. When we're talking about particular sounds or something, "Oh, so-and-so has a name that starts with that letter."

More time was given to the students' personal skill development involving problem-solving, enhancing self-esteem, organizing, handling responsibility, and working through interpersonal issues: "I think the number one thing that these kids in particular need, is organizational skills. Just knowing how to problem-solve." Another teacher also spoke about problem-solving: "I can train the children much more in appropriate behaviors and problem-solving: what they do if there's a problem, how to solve it." She had helped them develop "all kinds of routines: what they do first, what they do second, what they do third," to help them develop these skills. One teacher spoke about responsibility:

> We get a report from every centre so that they know it's not just a play time—not that play isn't valuable, but I think that play too, because we have a lot of work to accomplish, play is still accountable. So I want the children to know that this is their work. I talk to them a lot about school being their job; and that when you have a job, you have responsibilities.

Teachers stressed the importance of a wide range of skill development from helping students manage their own behavior to learning organizational skills. One teacher explained it in terms of choices:

> We talk about choices; we talk all day about making good choices and that all of our lives we have to choose, there's always many things to choose—and so if they're sitting at the table and they see that they're not getting their work done, that there's silliness going on, then they have a choice to make.

Besides personal skill development as an end in itself, teachers also described its support of oral language and writing skills. The quote at the beginning of this section illustrates how personal skill goals were embedded within the larger goal of language development. Teachers remarked that having more time to focus on individual children's needs meant that they could help provide the skill development that was integral to intellectual development. They spoke about being able to attend to a cue, to understand a question-and-answer sequence, to be able to sound out words and know other strategies to help develop both vocabulary and problem-solving. They dealt with social interaction issues and problems of feeling lonely or left out. Many teachers spoke about teaching self-esteem and pro-social skills. One noted, " I've talked about friendship, I've talked about making friends in the class, more so than I would have with a larger group. And I ask the kids every morning how they're feeling." Arroyo, Rhoad, and Drew (1999) identified student self-confidence as one of the 10 key influences on urban student underachievement. In sum, the

teachers tried to ensure that the children had the full repertoire of skills teachers in schools in more affluent areas tended to take for granted.

The development of autonomous behavior was encouraged. Students were taught how to handle difficulties in small groups before seeking outside help. As well, they were assisted in developing their ability to concentrate and to stay with a topic, to do more reading and writing, to problem-solve, and to stay focused regardless of what was going on around them. As one teacher commented, "Because right now what I'm amazed about is how smoothly they are managing this combining and separating three or four times a day." These skills helped the children develop a repertoire of thinking skills that are part of the scaffolding for literacy and intellectual development (Fischer, 2000). The teachers recognized that solving problems requires originality from the solver, and situations where students had opportunities to create solutions would not only encourage novelty but also aid their exploration of concepts and expand their understanding.

In comparison with the amount of research on word skill development, there are few studies on the importance of affective and social development as an aspect of literacy acquisition. Hart and Risley (1995) concluded that given the level of readiness of at-risk grade 1 students, they have much farther to go than advantaged students to reach grade level. But this does not acknowledge the different orientation at-risk children may bring to schools. Kameenui (1993) found that at-risk children do better in small-group settings where there is more immediate attention from the teacher and more overt teacher interest and support. The building of trust with an adult is often the most important criterion for minority children, and this in turn encourages them to risk in a safe environment, an essential feature of learning (Wells, 1998). In this study, teachers told many stories of the importance and benefit of spending time building trust. They spoke of children who were afraid to come into the classroom, who cried, who needed to be read to, but who also needed to be listened to as they told about their day and what was important to them.

Conclusion

Instructional strategies are usually taken to refer to the organizational and pedagogical arrangements that teachers employ in instructing children. We found that the traditional divisions of whole-class, small-group, and individual instruction were not particularly helpful in identifying how teachers worked with small grade 1 classes. These organizational arrangements were integrated through the actions of the teacher to provide a fluid, adaptive, holistic, and dynamic learning environment. The teachers in this study spoke about the importance of grade 1. They were advocates for the children, anxious that they receive the best education they could, and always cognizant that the students' lives held many difficulties that affected their work. They spoke about setting goals so that students knew what they could achieve, and about providing small-group experiences where the students could learn social and communication skills that would benefit them for life. They used a continual process of monitoring, assessment, attention, and feedback to encourage each child. The enduring characteristic of the classrooms was the fluidity of the instruction—a combination of individual and small-group and whole-group actions that

moved children toward the instructional goal of literacy in the grade 1 curriculum through the challenges the teacher provided for different children.

Molnar et al. (2000) concluded that the major change that takes place in small classes is "a focus on students as individuals." They went on to comment that teachers used the same methods as in teaching larger groups but "now the methods are directed at individuals much more frequently" (p. 13). The teachers in this study also spoke about individualization, but equally important were the many small-group sessions where children could work and learn together. From the descriptions of their days, these teachers spent limited time in whole-group activities.

For about the first three months of the study, the teachers would have agreed with Molnar et al. (2000) that they had not changed their teaching methods. They talked about the effect of the contextual changes, about being able to do more and to individualize more. The conversations about risking more, making changes, and thinking differently about their teaching did not occur until teachers felt comfortable with the progress of their students in meeting their curricular goals. Reasons for this might include the goal of the project (literacy achievement at least equal to the district average at the end of grade 1), the mid-year start for some, and for those continuing with grade 1 the development of new routines. As the term progressed, they did more curricular integration; gave more opportunities for student choice; integrated personal, organizational, and problem-solving skill development; and encouraged more hands-on and creative projects. Whereas some saw themselves as designing extensions or additions to a standard program structure, others saw themselves as integrating individual and small-group activities into a full day. We believe that the teachers' continuing professional development helped confirm the value of small groups as an integral part of literacy development instruction and showed the possibilities associated with a more integrated and creative curriculum in a complex, multi-task classroom.

Commentary

McGee and Richgels (2000) identified seven aspects of a literacy-rich classroom. These are an abundance of quality literacy materials; a physical arrangement that encourages reading and writing; daily literacy routines that include reading aloud, independent reading, and writing and sharing; a culturally sensitive and integrated curriculum; the continual use of assessment to guide instruction; a variety of instructional strategies; and a variety of groupings. There is extensive literature to support each of these aspects, but it is their integration in an overall design to develop motivated learners who feel confident about their ability to use literacy to learn about themselves and their world that is essential. This design should include multiple grouping patterns (Hiebert & Colt, 1989) and a balance of teacher-directed and child-initiated activities (Baumann & Ivey, 1997).

Not only is the overall integration of the design important, the teachers' activities are equally essential. The teachers' activities in this study accurately portray all the elements of diagnostic teaching (Walker, 2000). According to Walker, diagnostic teaching "involves making instructional decisions before, during, and after the reading event.... As she teaches, the diagnostic teacher [is] reflecting, planning, mediating, enabling and responding" (p. 34). It was the

confluence of these two strands, the teachers' diagnostic orientation, and the integrated plan of various activities designed to meet the academic and social needs of individual children, that helped establish the complex fluid nature of these classrooms. The teachers in this study were not always able to achieve this fluidity, which Csikszenymihalyi (1990) termed flow, but they gave many descriptions of having achieved it and knew it was teaching at its best.

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