In the fall of 1994, 12 people gathered in Chicago to outline a professional development program for educators, a program meant to break new ground. All had been involved in programs associated with the Coalition of Essential Schools, some as teachers, others as administrators. Three were professional development specialists from the fledgling Annenberg Institute for School Reform. All were familiar -- and dissatisfied -- with traditional forms of professional development, such as scripted workshops and motivational presentations. They wanted to build a very different approach, one that focuses on the practitioner and engages the teacher in defining what will improve student learning. This new model had worked very well for individuals in the group. The challenge was to make it work for groups of practitioners within a school.

A program emerged from this meeting. It was practitioner-driven and highly collaborative. It asked participants to draw on one another's skills and ideas, as well as on knowledge bases outside the school, to design a program and expand repertoires in ways specifically tailored to their own environment. The program was supported by emerging research from the Stanford Study of the Context of Secondary School Teaching led by Milbrey McLaughlin and Joan Talbert and from Fred Newmann and Gary Wehlage's school restructuring study at the University of Wisconsin. Scholars and school people agree that professional collegiality correlates with more appropriate teaching practices and elevated student achievement.

The professional development unit of the Annenberg Institute for School Reform, the National School Reform Faculty (NSRF), took on the task of designing a program to train coaches who would help groups of practitioners, or Critical Friends Groups (CFGs), identify student learning goals that make sense in their schools, look reflectively at practices intended to achieve those goals, and collaboratively
examine teacher and student work in order to meet their objectives.

In this program, coaches are trained to create a collegial culture within their groups, one that promotes close reflection on practice and student work, with a constant focus on improving student learning. To create this culture, coaches use a number of protocols -- examining student and teacher work, solving problems, discussing texts, observing peers, setting goals, building teams, and creating teacher portfolios.

The first NSRF training seminars were held in the summer of 1995 with 88 coaches from 70 schools. Six years later, the program has grown to more than 1,000 coaches in 700 schools. These schools represent a variety of education reform programs, ranging from the Carnegie middle school initiative to Annenberg Challenge sites to Foxfire schools. They include large and small schools, urban and suburban, from Los Angeles to rural Maine. All of those in the original group who met in 1994 became deeply involved in CFG work in the ways that seemed most appropriate to them -- as coaches, as group members, as highly supportive administrators. Two remain as co-directors of NSRF.

EVALUATING CFG'S

In 1996 the Annenberg Institute commissioned a two-year study of CFGs that were started during the 1997-98 school year to determine their effectiveness in meeting interim and long-term objectives. The institute conducted a theory-based evaluation, which assumes that every program is based on a theory about how and why it will work. The theory about how and why CFGs will work is that teachers who join a CFG and attend the group's meetings learn to work collaboratively by participating in professional development activities, such as examining student or teacher work. Participation leads to greater reflection about their teaching practices and then to changes in practices aimed at improving students' learning. This enables them to gain greater insights through feedback from peer observations, another professional development activity of the CFG. Finally, as a result of a continual process of teacher reflection, action, and feedback, student achievement improves.

The evaluation team gathered data from each stage of the CFG process to determine if it resulted in the anticipated interim outcome. For example, they observed CFG meetings to find out what the members talked about and how they used the discussion protocols. Finally, the evaluation team examined whether the sum of these activities resulted in improved student achievement, the long-term objective of CFGs.

Out of 62 schools with new CFGs in the 1997-98 school year, 12 were selected for the evaluation. These included five high schools, five elementary schools, and two middle schools. These schools enrolled from 200 to 2,100 students and were located in all areas of the country. Their student populations represented a variety of socioeconomic and racial backgrounds.

The evaluation team observed CFG meetings, observed and interviewed CFG and non-CFG teachers, and collected samples of teacher and student work over a period of two school years, beginning the spring before each school's coach was trained. These data provided insight into the connections among CFG activities, teachers' thinking about their practice, and changes in their actual practice. Evaluators collected data at the 12 schools during site visits. For eight of the schools they collected data twice a year
for one week, and for four of the schools they collected data once a month on the day of the CFG meetings.

All teachers in the 62 schools sponsoring CFGs were invited to complete the Professional Climate Survey as part of the evaluation. To compare the answers of teachers who participated in the CFGs with those of teachers who did not, the mean responses of the two groups were compared using one-way ANOVA. The differences between the two means were statistically significant for all items reported (see Table 1).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Comparison of CFG and Non-CGF Teachers' Mean Responses to Selected Items</th>
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<tbody>
<tr>
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<td>CFG</td>
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<td></td>
<td>Mean*</td>
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<tr>
<td>Opportunities</td>
<td>2.13</td>
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<tr>
<td>Engagement</td>
<td>1.70</td>
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<tr>
<td>Collaboration</td>
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<td>Adaptation</td>
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<td>Expectations</td>
<td>4.16</td>
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<td>Support</td>
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<td>District</td>
<td>3.74</td>
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<tr>
<td>State</td>
<td>3.54</td>
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</tbody>
</table>

*The first six items use a scale from 1 (strongly agree) to 6 (strongly disagree). The last two range from 1 (not at all) to 6 (a significant extent).

** Effect Size is the difference of the means divided by the standard deviation. By convention, an effect size of .20 is considered to be small, .50 medium, and .80 large. For further information, see http://seamonkey.ed.asu.edu/~alex/teaching/WBI/es.html.

In the rest of this bulletin, we discuss the effects of CFG participation on teachers' attitudes and practices. We also address contextual factors that hinder and support CFG work.
COLLABORATIVE PROFESSIONAL DEVELOPMENT

The theory of how and why CFGs work starts with the assumption that teachers who join a CFG and attend the group's meetings learn to work collaboratively by participating in professional development activities, such as examining student or teacher work.

The Professional Climate Survey asked teachers to indicate the extent to which they agreed or disagreed with a series of statements regarding learning opportunities on the job and professional engagement. Teachers who participated in CFGs agreed more than did other teachers that they had many opportunities to learn new things in their job, that they felt supported by colleagues to try out new ideas, that they were encouraged to experiment with their teaching, and that teachers in their schools were continually learning and seeking new ideas (see "Opportunities" in Table 1).

Regarding professional engagement, CFG teachers more strongly agreed than did non-CFG teachers that they were willing to put in a great deal of effort beyond that usually expected of teachers, that they felt that they were improving as a teacher every year, and that they were always eager to hear about ways to improve their teaching (see "Engagement" in Table 1).

Teachers' answers to the survey indicated that, by a wide margin, CFG teachers collaborate more with each other than do non-CFG teachers (see "Collaboration" in Table 1). CFG teachers agreed more than did non-CFG teachers that they share ideas about teaching, share samples of their students' work, meet regularly to discuss classroom problems, work together to develop teaching materials or activities, and seek each other's advice about professional issues and problems. They also agreed more than did non-CFG teachers that they could count on most staff members to help out anywhere, anytime, and that there was a great amount of cooperative effort among staff members.

In interviews, CFG teachers cited three specific reasons why the CFG work was much more satisfying in comparison to other kinds of professional development:

- It is continual.
- It is focused on their own teaching and their own students' learning.
- It takes place in a small group of supportive and trusted colleagues within their own school.

These characteristics of professional development within a CFG are illustrated in the vignette that follows:

At a large middle school with a substantial immigrant population, teachers participating in the CFG spent three years trying to figure out how to help their students learn more. They tested a number of methods, some successful and others less so, and finally concluded that a major problem for these students, who were unfamiliar with American culture and uncomfortable with English and often with each other, was that they felt lost among the hordes of their peers. To respond, the teachers decided to create a small student community where every student knew every other student and his or her teacher. They experimented with looping, a scheduling model in which the same teachers work with the same...
group of students for more than one year, while they continued to work on strategies for improving student learning. By the end of the first looping cycle, they found that their students' achievement not only had improved on school-level measures, but it also had improved dramatically -- a 17% increase -- on standardized tests administered statewide.

CHANGES IN CLASSROOM INSTRUCTION
According to the theory about how CFGs work, it is assumed that teachers' participation leads to greater reflection about their teaching practices and then to changes in practices aimed at improving students' learning. Classroom observations and interviews with teachers indicated a shift from teacher-centered to student-centered instruction in classes taught by CFG teachers. Classroom arrangements became more flexible, and the pace allowed students more time to gain mastery of a subject, often through team learning.

One theme that emerged from teacher interviews was that many teachers became more thoughtful about the connections among curriculum, assessment, and pedagogy as they participated in the CFG activities. They also turned from concern about covering the curriculum to concern about having enough time to ensure that their students were well-grounded in the basics of reading and writing.

Teachers who responded to the Professional Climate Survey were asked to indicate the degree to which they agreed or disagreed with a series of statements regarding classroom instruction, including adapting their instruction to students' needs and having high expectations of their students (see "Adaptation" and "Expectations" in Table 1). CFG teachers agreed more than did non-CFG teachers that they should change their approach if some students in their classes were not doing well and that they could significantly affect a student's achievement by trying a different teaching method.

Teachers' answers to the survey also suggest that teachers who participate in CFGs have higher expectations for students than do teachers who do not participate. While all teachers tended to disagree with a series of statements indicating that not all students are capable of learning, there was a significant difference in the mean responses for the two groups, with CFG teachers disagreeing more than did non-CFG teachers.

The following story exemplifies how teachers in a CFG adapted their writing instruction to help a particular group of students learn more:

A group of six teachers and their building principal, led by a colleague who is a trained coach, gathered for their monthly CFG meeting in an urban charter school. A kindergarten teacher shared some anonymous samples of writing from his class. The teachers agreed to score the samples according to a rubric their school was using. When they compared their scores, they discovered that the writing samples fell into two distinct groups: high-scoring samples and low-scoring samples. When students' names were identified on the samples, the teachers were disturbed to learn that those who scored high were white students, while those who scored low were from low socioeconomic backgrounds, mostly students of color whose primary language was not English. They decided to spend the year improving the writing of
these children by applying different instructional methods and tracking the results.

It is assumed that teachers who participate in CFGs gain greater insights through feedback from peer observations of teaching practices. The following account of a CFG's activities in a 2000-student urban high school illustrates this process:

The group decided to use peer observation as a vehicle for improving teaching and learning. A science teacher in the CFG wanted her students to use their books and each other as resources, rather than depending on her for answers. She asked the other two teachers from her peer observation triad to observe her classroom to ascertain how the students were drawing their conclusions about science problems.

After careful observations, one teacher noted, "You asked your students, 'Which side of the onion should you use?' Before anyone responded, you answered, 'The inside part.' I thought that was interesting because you wanted to know how you use prompts to turn student attention to the text. But I don't think you were planning that prompt."

The science teacher laughed. "I was prompting myself."

"Exactly," her colleague replied. "It would have been great to hear the students' responses. Was the answer in the book? Was it something they had thought about?"

The observed teacher took copious notes. At the end of their debriefing session, she asked, "Great! Can you come back Thursday?"

CONTEXTUAL ISSUES

In schools where changes in teachers' thinking and practice occurred in the study, principals were publicly supportive of the CFGs and were CFG members themselves. They facilitated scheduling for CFG meetings, usually during the school day. Their leadership style included four attributes:

1. They included teachers in decision making, especially regarding teaching and learning.
2. They supported teachers' classroom decisions.
3. They fostered a spirit of shared responsibility for student learning among the whole staff.
4. They frequently articulated publicly how the CFG work supported the school's vision and mission.

Principals who failed to actively support the work of CFGs were the greatest hindrances to their success. To become part of the National Faculty network, the principal of an applicant school agreed to support the CFG by providing time during the school day for the group to meet and by providing substitute teachers to cover classrooms when CFG teachers participated in peer observations. Some principals did not live up to their commitment, and some replacement principals failed to do so.
In some large urban districts, superintendents did not consider the importance of finding a principal who would support the CFG when they made appointments. The teachers who felt they had made some progress because of their CFG participation expressed frustration over policies set by new administrators that prevented them from meeting regularly.

Comparing answers to the Professional Climate Survey, teachers who were members of CFGs were more likely to agree that they were supported by their administration than were teachers who were not members (see "Support" in Table 1). CFG teachers agreed more than did non-CFG teachers that they were encouraged to experiment with their teaching, that the administration was supportive and encouraging toward the staff, and that the principal was interested in innovation and new ideas.

State and district policies regarding curriculum, assessment, and especially accountability influenced the work of CFGs. In five schools, teachers viewed such policies as congruent with their goals, and they used their CFG time to focus on issues of teaching and learning. These schools are in relatively low-stakes environments where the state provides feedback and analysis of annual test results to students, parents, teachers, schools, and districts, and where no sanctions are attached to low test performance.

In the other seven schools, however, teachers were preoccupied with testing and accountability issues that dominated CFG meetings. They worked in high-stakes accountability environments where there was a possibility of various sanctions, such as being placed on probation or being "reconstituted," a practice that ranges from ousting most of a school's staff and hiring replacements to simply requiring employees to re-apply for their jobs. This context seemed to prevent CFGs from focusing on improving teacher practice and student achievement.

The survey asked teachers to indicate the level of influence of district and state policies on their decisions about instructional content and pedagogy and their professional growth and development, using a scale ranging from one ("not at all") to six ("a significant extent"). Teachers who participated in CFGs reported less district and state influence than did other teachers (see "District" and "State" in Table 1).

CONCLUSION

Skilled and experienced coaches are essential if the CFG's members are to succeed in identifying student learning goals that make sense in their schools, look reflectively at practices intended to achieve those goals, and collaboratively examine teacher and student work. In the study, the groups whose members spent the majority of their time analyzing student or teacher work samples also seemed to have the most changes in teachers' thinking and practice. The most successful CFGs began to examine student work early, building trust by working together, rather than engaging in team-building activities. (However, the willingness to work as a team depended on existing trust levels.) Coaches in the least successful CFGs delayed these activities in favor of team building.

In a majority of schools, CFG protocols, such as peer observations, spread to other venues. In three schools, CFGs and other professional development activities became synonymous. Successful CFGs led to the creation of groups in other schools. In one suburban district, the accomplishments of a CFG in an
elementary school inspired four of the five other elementary schools and the district's three middle schools to adopt the program. CFGs also spread to other districts. A school-university partnership involved with the NSRF since 1995 saw the number of CFGs in its state grow to 40 by September 1999, enough for principals with CFGs in their schools to form their own professional group.

In the summer of 2000, the NSRF was moved from the Annenberg Institute for School Reform to the Harmony School Education Center in Bloomington, Indiana, where it is now an independent national organization. The new national center is extending existing relationships and exploring new strategic partnerships with other national and regional education organizations, school reform networks, and foundations. NSRF promotes the values of reflective practice, collaboration, shared leadership, authentic pedagogy, democracy, equity in opportunity and achievement, and social justice to form the basis for a national movement that will result in improved teacher quality and improved learning for all students.

ENDNOTES


2. The survey was administered in the 1997-98 and 1998-99 school years. Only responses to the second survey are reported in this research bulletin. A total of 1,412 teachers -- 632 CFG teachers and 780 non-CFG teachers -- responded to the second survey.

3. Contact the NSRF by writing to Harmony/NSRF, P.O. Box 1787, Bloomington, Indiana 47402 (phone: 812/330-2702) or by e-mail to nsrf@harmony.pvt.k12.in.us. Visit the NSRF website at www.harmonyschool.org.

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