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ABSTRACT
          This study utilized collaborative group action research to
investigate the effective use of mentoring teacher programs. The research
group consisted of a new content area teacher, a transferring teacher from a
different state, and a university researcher. The group met initially to
finalize the research question, which addressed how they could make effective
use of their mentoring program, then held meetings regularly throughout the
study. Individual and group meetings were audiotaped, and participants kept
journals. The researchers collected baseline data on current mentoring
programs, teachers' attitudes, and future plans. They talked to other
teachers and administrators about the current mentoring situations, then
shared that information with the group. Teachers and mentors were assigned to
one another, and mentors received training through a mentoring workshop. This
paper describes participants' experiences in the mentoring program, including
information from their journals. It concludes that the strategies and
techniques established to maintain a positive mentoring experience for all
participants were successful, and the program was very effective. The main
concern about the program was the distance between the mentor and protege,
since they were not in the same school. (Contains 16 references.) (SM)

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Making Effective Use of Mentoring Teacher Programs:

A Collaborative Group Action Research Approach

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Paper presented at the annual meeting of the National Association for Research in Science

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The use of experienced teachers to mentor new and newly transferred teachers has been an effective means of helping these new teachers adjust and develop professionally in their new environment. One attempt to better understand and improve teacher's professional development in recent years has been the use of collaboration and collaborative action research (Saurino, 1998; Pate, 1997; Elliott, 1990; Noffke & Zeichner, 1987; Carr & Kemmis, 1983). We were interested in how its use by teaching groups might help teachers answer questions related to the mentoring practice. It is important to note that when we refer to action research, we are referring to collaborative action research, and most often a subset defined as collaborative group action research. In this study, we made use of collaborative group action research to answer our research question concerning the effective use of mentoring teacher programs.

The process of action research is described as cyclical, involving a recursive, nonlinear pattern of planning, acting, observing, and reflecting on changes in educational situations observed by the researchers. For the purposes of our study, we are using Lewin's (1947) definition of action research as the basis of our definition of collaborative group action research from his study of "group dynamics." In Lewin's work an attempt to solve a problem existing in the group was introduced by the group facilitator and the impact of the change was noted. Lewin's work began a trend influencing others over the next 50 years who emphasized issues of greater productivity and efficiency in many areas including education.

The addition of the word "collaborative" to action research implies that two or more researchers are working together, exchanging ideas and expertise, interacting as they conduct action research in an effort to be more productive than if they worked alone. The collaborators

meet together regularly to plan, conduct, reflect, and write about the research they are

conducting. The collaborative action research in our study involved a group of educators

conducting classroom-based research to answer a question of interest.

The word "group" emphasizes an important area of developing research in public schools.

The group concept has been one of several attempts to conduct research that meets the needs of

students by utilizing the benefits of working in a group to brainstorm answers to questions and

solve problems of interest to the researchers. In summary, the ultimate beneficiaries of the

research process are the students, yet the teachers and university researchers benefit from new

knowledge gained through the collaborative process.

In addition, we see collaborative group action research as a methodology, a process of

conducting research using a particular sequence of research strategies and theoretical

perspectives (Saurino & Saurino, 1996). Collaborative action research is a recursive sequence;

each completed series of research steps often referred to as a "cycle" of research. The term

cycle is misleading, however, since the researcher never begins again at the same starting point

(Saurino, 1998).

Our Study

Our expansion of collaborative action research was to utilize a group setting, and to adapt

the research process accordingly. All the steps we took in the process can be considered the

actions of collaborative group action research; they were the ongoing practice of the teachers,

the actions we took to answer the research question, and include changes in practice, or new

actions resulting from participation in the collaborative group. There has been very little

research published about the use of collaborative action group research settings, and even less about the process of conducting collaborative action research in a group of more than two researchers. With the increase in the use of teaching groups in our schools, we were interested in how collaborative action research might be utilized with educational groups.

We believe the documentation of the process of adapting collaborative action research to teaching groups is an important first step in the use of the process in other areas of education. The unique form of collaborative group action research used in our study could allow the process to become an important grouping tool, allowing teachers and researchers to learn more about their practices and providing a forum in which to try new strategies, receive feedback, and reflect on what is learned in the process. In addition, the process allows university researchers to conduct meaningful research in the classroom environment and learn more about what theoretical strategies have practical application in practice.

Our Cycle of Collaborative Group Action Research

The research group in our study consisted of a new content area teacher, a transferring teacher from a different state, and a university researched. Meetings of the group were scheduled regularly throughout the study, and an informal atmosphere was maintained. The group meetings were where plans could be made, questions asked and answered, problems discussed, and reflections expressed. It was the opportunity for discussion and flow of ideas between members of the group that proved most valuable. The group setting was conducive to the generation of new ideas, strategies, and techniques used to initiate actions, direct the research, solve problems, and ultimately find answers to the research question. Through the

process of self-conscious scrutiny we as participants theorized our practices, revised our theories in light of reflective practice, and adjusted our practice through reflectively informed changes in our behavior (Carr & Kemmis, 1983). An important goal of the reflection was to develop a rational understanding in the particulars of our practice of how it applied to the transfer of information. This increase in understanding was achieved through systematic reflection on both the unconscious and deliberate acts which constituted the process (Oberg, 1986). Another goal of the process was for the participants to understand this form of group inquiry, that is, how the reflective process increased awareness of our practice and eventually our capacity to direct it more fruitfully.

For convenience in the discussion, we have divided the overall research process into four chronological phases, based on the recursive collaborative group action research cycle in the study, and a planning phase for future cycles:

1. August 1 - 15 1998   Planning phase of the project and Cycle 1

2. August 19 - September 1998   Baseline data collection for Cycle 1

3. October - December 1998   Intervention strategies/ Modification of interventions

4. January 1999   Repeat baseline data / reflection for Cycle 1

5. February 1999   Return to Planning phase for future Cycles

Phases 1 through 4 comprise the first research sequence or "Cycle" and Phase 5 and any following phases might repeat the cycle to gain more information. After the first cycle, research questions could be modified or replaced, based on what was learned to date. A single cycle consists of the steps in the phases outlined in Figure 1, as was conducted during our study.

Planning

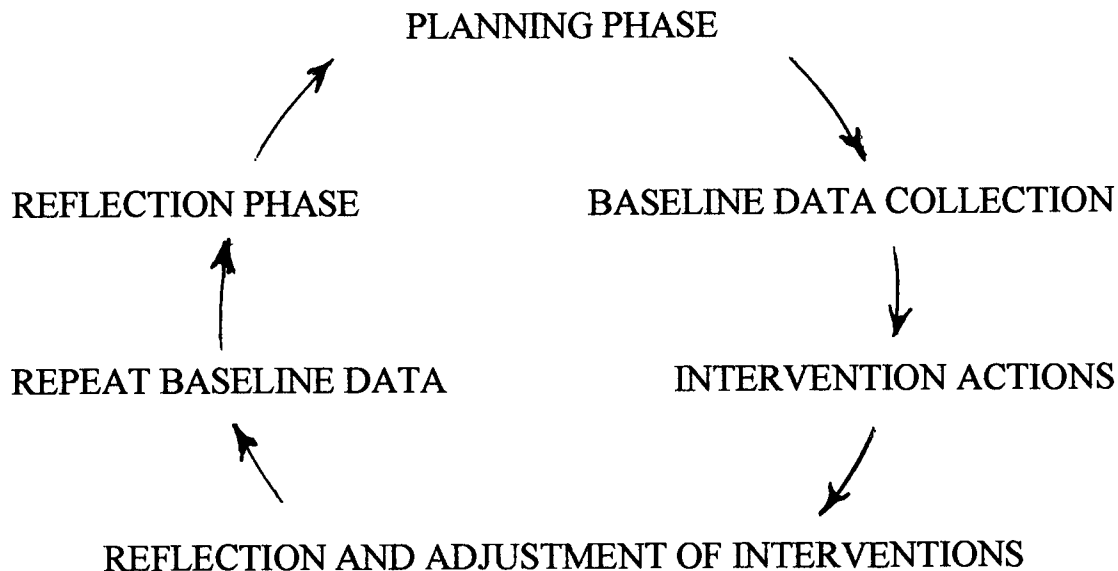Phase 1 (Planning Phase in Figure 1) began in August of 1998 with an initial meeting of

PLANNING PHASE

REFLECTION PHASE   BASELINE DATA COLLECTION

REPEAT BASELINE DATA   INTERVENTION ACTIONS

REFLECTION AND ADJUSTMENT OF INTERVENTIONS

Figure 1. Illustration of one recursive sequence of collaborative group action research, often

referred to as a "cycle."

the group members. The group volunteered to conduct the research after being contacted by the

university researcher. Penny was familiar with the research process from prior studies, which

was discussed in the initial meetings and a basic time-line for the cycle of research was

established. Penny knew who her mentors would be, but did not have a chance to involve them

in the research until later in this cycle. All of the participants involved had a variety of questions

and concerns that were expressed and discussed, the most notably concern was about the amount

of work required to complete the project in regard to the process of data collection. We emphasized the flexibility of our planning and our time line. During the project, we audio taped all meetings of the participants, including individual and group meetings. In addition, we made field notes of observations, kept personal journals from our individual points of view, and gathered data concerning the research question from administrators and other teachers. These data were the source for this report.

The participants met during preplanning in August and finalized the research question for the cycle. Penny and Dan spearheaded the discussion about the research question since they were familiar with the process and were introducing it to the others. After discussion, the final research question was as follows:

How can we make effective use of our mentoring program?

Baseline Data

Phase 2 (Baseline Data Collection in Figure 1) began with what we refer to as "baseline data." Baseline data answers the question, "What is the current situation in regard to our research question?" The study school was located in a rural area about an hour west of a large mid-Atlantic metropolitan city. It consisted of about 650 somewhat homogenous middle-class students defined by teachers and administrators as "average." Initially we gathered information on what was currently being implemented as a mentoring program, what plans were already in place, as well as the feelings of teachers and administrators toward the mentoring program. This information constituted our baseline data and would be used for comparative reflection at the end of the cycle.

The group was asked to consult with other teachers and administrators about the current situation and summarize their information at the next meeting. Penny was a newly hired teacher, but had 11 years of experience in another state. She attended the required new teacher training with all the newly hired teachers, gathering information about the mentoring program. Other teachers and administrators were queried about the program as well. During the next meeting of the group, Penny and the others summarized their baseline data. The following excerpts were typical interactions during the meeting (names other than the authors have been changed):

Dan (University Researcher) August, 1998: Please tell us, in a few sentences, about your summaries of the baseline data.

Penny (Transferring Teacher): I talked to the other new teachers, and we are all in the same situation. We're new to this area, and even though I'm an experienced teacher, the uniqueness of this state's educational policies and this community's customs make me aware of the fact that I have a lot to learn even before I attempt to bring to this position my style and my methods. Being on crutches doesn't help ether. I really wondered how my new employers and peers would react to my foot surgery, but everyone has been very supportive. I met Sue for the first time at the county-wide [new teacher training] meeting. She is one of two mentors that have been assigned to me. Both mentors teach FUTURA which is this county's fourth and fifth grade pull out gifted program, and is also the class I'll be teaching. The two mentors serve different positions in terms of mentoring me. Sue is at the county level and Roberta is at the school level. I won't teach in the same school as

Sue, but she will give me background information, and will meet with me monthly at our regularly scheduled FUTURA [meetings] to see how I'm doing . In my FUTURA program, I am the only FUTURA teacher at Arcola Elementary where I teach Monday through Thursday. On Fridays, I teach at the Algonkian FUTURA center where Roberta, my other mentor, teaches along with Lena, another teacher who is also new to FUTURA. Lena and I have the same mentors, Sue and Roberta. After the main [training] meeting in the auditorium, we split up into groups to meet our mentors. All of the mentors and new teachers who taught gifted met together. Roberta wasn't there, but I had a chance to meet Sue. We were scheduled to meet together the next day at the school where she teaches. She provided me with an overview of the FUTURA program. The group finished earlier then I thought it would. Since I can't drive right now, Sue offered to take me home. Her kindness set a positive stage for us to work from.

Dan: How did that meeting go the next day?

Penny: We began by discussing curriculum. Curriculum planing is very much a part of teaching FUTURA. We are starting a new unit this year based on "structures". Sue discussed the fact that last years six FUTURA teachers did not agree on how to teach structure; some felt that it should be taught in terms of pure architecture, while others felt that it should be more general, which would mean that structure would include the structure of all disciplines. Sue had a lot of material ready for me to study. She was well prepared. She had just moved into the school, but she apologized for not having her room decorated. The Central Office had encouraged the mentor teachers to have their rooms

ready. Sue had some snacks for us, and talked generally about her first two years in

FUTURA. She emphasized that during the first year she "felt like she really didn't know

what she was doing. The curriculum was new, yet constantly changing and evolving." She

has now developed her style of teaching and really enjoyed teaching FUTURA. She

emphasized that there is room for individual teaching styles.

Dan: Sue, How did you prepare for being a mentor?

Sue: A couple of days before I met with Penny for the first time, all of the mentors went to

a workshop.

The workshop was conducted by Gayla Moilanen (1998) and titled *Mentoring Magic: Helping*

Beginning Teachers Put the Pieces Together (same title as the handbook). The workshop mostly

discussed first year teachers, but it also gave us some ideas that would help veteran teachers as

well. Some of the information included:

Research findings of Beginning Teachers

Active Listening Suggestions

Our Individual Mentoring styles

How to Conduct our first Meeting with our Proteges

How to Assist our proteges with first day preparation

Monthly topics for monthly meetings

Monthly Mentor/Protege Activity Log

The mentors received staff-development credit for being mentors, and their monthly logs were

sent to and monitored by the Central office.

Penny's first meeting with Roberta took her from the general county level to in-class

experience. They met for the first time at a FUTURA meeting during preplanning. It was there

that they planned Penny's role for the two different schools where she would be teaching.

Roberta also provided Penny with lesson plans, books, and other materials so she could begin to

become familiar with the counties gifted program for fourth and fifth graders. Roberta was the

mentor that Penny would see weekly and would get feedback from. As the school-based mentor,

Penny spent more time with Roberta, yet Roberta did not receive staff development credit or

money for her effort.

Interventive Actions and Modification

Phase 3 (Intervention Actions and Reflection And Adjustment Of Interactions in Figure 1)

Sue and Penny continued to meet monthly. Sue would quickly touch base with Penny at

monthly FUTURA meetings and bring up topics as scheduled in the Mentoring Magic handbook

when the general meeting was over. Even though there was much preparation at the county

level to provide a quality mentoring program, time and distance were significant factors that

hindered communication between Sue and Penny. Their schools were thirty minutes apart, and

the FUTURA meetings often lasted until 5:00. E-mail was one solution that the teachers

considered, but both teachers had computer problems during that time period, and E-mail

communication failed before they had a chance to make it work. Regardless of these

difficulties, Sue had established a positive relationship with Penny so that Sue's opinions were

valued by Penny. Therefore, Penny would make a point of contacting Sue on important issues.

Penny, Journal Entry, December 15, 1998: I have had some difficulty with a Fibonacci

lesson that I've been trying to develop. Sue and Linda sent me materials that will help me

explain the concept to my students ... The idea of demonstrating helixes with artichokes,

seashells, and pineapples, as well as pinecones worked out well. I'm going to have my

students start painting pinecone helixes next week.

Time and distance may have been a problem for Penny and Sue, but these two factors were to

the advantage for Penny and Roberta. Roberta was willing to share ideas freely, which came

from several years of teaching FUTURA. Another advantage of seeing each other regularly was

that Roberta was able to adopt some of Penny's ideas as well.

Penny, Journal Entry, November 24, 1998 : I was pleasantly surprised today. My idea to

develop poems with 2 or 3 voices worked out well. Lena and Roberta loved it [the lesson].

Roberta, Journal Entry, November 24, 1998 : We mix and match our teaching styles [when

we work together].

Planning for future units was done as a threesome on Friday. Penny would bring her ideas to

their after school planning sessions, and try to incorporate Roberta and Lena's lessons as well.

Penny and Roberta also realized that success in the mentoring program was as dependent on her

own use of the mentors, as it was on the mentors themselves. She asked many questions, took

advantage of time to observe, and borrowed resources from Sue and Roberta's centers that she

could learn from.

Roberta, Journal Entry, December 7, 1998: Mentoring works both ways. You expect to

learn something along the way. She [Penny] listened carefully for phrases that indicated

expectations that the local community and the Central expected from the FUTURA

program. One example was debates. Penny was not interested in teaching debates, but as

the time came near to teach debates, it was real obvious that this was expected from the

community and from the central office, so she jumped right in.

Roberta and another FUTURA teacher shared debate files, video tapes of prior debates, and

other resources so that Penny was well prepared to teach debates.

Repeating Baseline and Reflections

Phase 4 (Repeat Baseline Data and Reflection Phase in Figure 1) began in January, 1999

and provided a summary of the current situation at the end of the cycle. The experience had

been a positive one for Penny. Once the baseline data was summarized, reflections began about

the research cycle. The addition of a second mentor, the guidelines of the handbook, and the

weekly contact with a mentor were the basic ingredients present at the end of the cycle, that

were not in place at the beginning of the cycle. Some of the reflections from a reflection

meeting near the end of the cycle follow:

Penny: We answered our research question is several ways. Sue was well prepared to

mentor me because local school decided to provide staff development for mentors. Other

positive factors include her experience as a FUTURA teacher, and her taking the time to

develop a trusting relationship with me. Time and distance were two problems with my

other mentor that we tried to overcome. The most effective methods were to discuss

mentoring issues monthly after regularly scheduled FUTURA meetings and to talk

frequently on the phone. Time and distance worked to the advantage of Roberta and I.

Since I was scheduled to work regularly in Roberta's classroom, it gave both of us a chance to communicate effectively. Roberta felt that time together was often rushed since we were preparing for and teaching lessons each day that I was there.

Roberta: (I wish we had) some days just to plan, share ideas, talk about the program. Working closely with other people builds relationships as well as confidence in new teachers.

Phase5: Return to Planning Phase for Future Cycles

As the reflection phase ends, a new phase might begin and start the cycle over again, especially if the research question had not been answered. Our research question had been answered. Sue, Penny and Roberta felt that they had made effective use of the mentoring program. Penny felt that both mentors played equally important roles in making her first year in a new county productive and meaningful.

Conclusions

In summary, we were pleased with the general and specific strategies and techniques that were established to maintain a positive mentoring experience for both the mentor and the protege. The county's preparation of Sue through Staff development and her experience with FUTURA helped her to be prepared to assist Penny in a positive way. The additional school based FUTURA teacher, Roberta, provided Penny with additional varied experiences to help her become familiar with the expectations of her new school system. It was to Penny's advantage to have two mentors. The combination of the two different styles helped give Penny a more realistic view of the county's gifted program. For any new teacher, experienced or not, two

mentors provide the new teacher with a much clearer perspective of county policy, and makes it easier for an experienced teacher to adapt her style to the new system. Team building was another positive aspect of the experience. Penny had a chance to work independently four days a week, then share her viewpoint weekly at the school Roberta and Lena taught in.

One concern about the program was the distance between the Mentor and the protege. Sue and Penny would have had more time discussing curriculum and county policy if there had not been such a distance between their two schools. It also seems ironic that Roberta did not receive staff development funds or credit for her efforts, yet Penny spent considerably more time with Roberta then Sue. In total, however, the mentoring program was quite effective and the real beneficiaries were our students.

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