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ABSTRACT

A practicum was designed to develop training that would increase teachers' understanding of an integrated curriculum and how to plan for implementation. Subjects were 23 teachers at a K-5 elementary school. Training was developed to provide a common knowledge base of an integrated curriculum, productive collaboration and planning, and understanding of work-behavior styles. The researcher developed and administered pre- and posttests, teacher attitude surveys, and training session evaluations; acted as a resource person for team planning for integrating curriculum; reviewed lesson plans; and made classroom observations of curriculum integration. Analysis of the data showed that teachers who participated in the training had a clear understanding of integrating curriculum and how to plan for integrating curriculum. The posttest results showed mastery of concepts presented in the training, and teacher attitude surveys showed participants felt communication had increased between grade-level team members and between and among grade levels. (A Readiness for Curriculum Integration survey, a curriculum integration assessment questionnaire, and a survey to measure school-wide communication about curriculum are appended. Contains 29 references.) (AA)

Improving Teachers' Understanding and Planning of an Integrated Curriculum with a Staff Development Plan

by

Kathryn Carter-Golden

Cluster 49

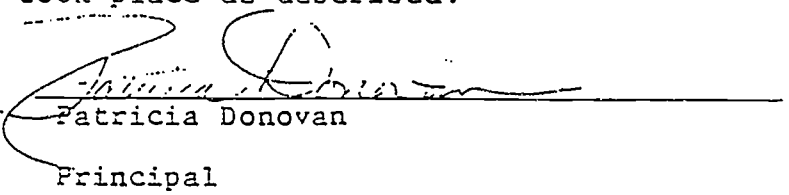
A Practicum I Report Presented to the
Ed.D. Program in Child and Youth Studies
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Nova Southeastern University

1994

PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: 

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This practicum report was submitted by Kathryn Carter-Golden under the direction of the adviser listed below. It was submitted to the Ed.D. Program in Child and Youth Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

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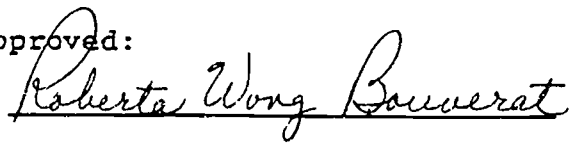

Roberta Wong Bouverat, Ph.D., Adviser

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This practicum was possible because of the cooperation and commitment of the teachers who participated. Special thanks go to Thomas M. Golden for constant support and encouragement to the the writer and participants.

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ABSTRACT

Improving Teachers' Understanding and Planning of an Integrated Curriculum with a Staff Development Plan. Carter-Golden, Kathryn A., 1994: Practicum Report, Nova Southeastern University, Ed.D. Program in Child and Youth Studies. Staff Development/Elementary/Secondary Education/ Integrated/Interdisciplinary Curriculum/Team Planning/Team Building.

This practicum was designed to develop teacher training that would increase understanding of an integrated curriculum and how to plan for implementation. Training was designed that provided a common knowledge base of an integrated curriculum, how to collaborate and plan productively, and understanding of work-behavior styles. Training was presented at the school site at no cost to the participants.

The writer developed and administered pre- and posttests, teacher attitude surveys, and training session evaluations; acted as a resource person for team planning for integrating curriculum; reviewed lesson plans; and made classroom observations of curriculum integration.

Analysis of the data showed that teachers who participated in the training had a clear understanding of integrating curriculum and how to plan for integrating curriculum. The posttest results showed mastery of concepts presented in the training. Teacher attitude surveys showed participants felt communication had increased between grade-level team members and between and among grade levels.

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CHAPTER I

INTRODUCTION

Description of Community

The writer works in a K-five elementary school located in a coastal area that is highly agricultural with the citrus industry as the primary economic factor. The school district has a predominantly middle/upper-middle socioeconomic profile with a population of approximately 12,000 students. This school is one of eleven elementary schools in the district. The school serves a primarily upper-middle class, small-city neighborhood. The school was established in 1957 and was designed to accommodate 200 students. The school's population is now 387. The school has added nine portable classrooms to house third-, fourth-, and fifth-grade classes as well as one first grade, and exceptional education services. New construction is currently underway. There will be new wings for K-fifth grades, a new library, art, music, and multipurpose rooms. When the new facility is complete, the existing buildings will be renovated and will house a parent center, exceptional education and administrative offices.

Writer's Worksetting and Role

The school's population consists of 78.67% white, 19.47% black, 0.27% Hispanic, and 1.60% Asian. This compares to the district's 76.44% white,

18.20% Black, 4.48% Hispanic, 0.65% Asian, and 0.24% Indian. The state racial/ethnic breakdown is 60.52% white, 25.07% Black, 12.84% Hispanic, 1.41% Asian, and 0.17% Indian. The student attendance rate is 95.79%, which is the average number of children who attend each day compared to the average membership. The percentage of students who enrolled in school at the beginning of the year and left before the end of the school year (student mobility) is 7.20%. This compares with 9.83% and 14.90% for the district and state respectively. The school's free and/or reduced lunch eligibility rate is 20.53%. The gifted population of the school is 15.19%, the highest in the school district. There are no moderately or severely handicapped students. The school's mildly handicapped population is 14.40% while the district is 12.96% and state is 11.84%. One student is classified as Limited English Proficient (LEP). The percentage of students retained in kindergarten is 22.06% which compares with the district's 8.50% and state's 3.90%. This school showed the highest achievement of district elementary schools on the California Test of Basic Skills (CTBS) given to fourth grade students with 53% scoring above the 75th percentile in reading and 49% scoring above the 75th percentile in math.

A building principal, elementary specialist, and professional staff of 31 regular, exceptional education teachers and support personnel serve the school population. There are 14 non-instructional personnel on campus. The school is also served by a part-time school psychologist and prevention-intervention specialist. Other support personnel are provided through a

Community Partnership grant which helps the school operate as a full-service school.

The teaching staff consists basically of veteran teachers with only three teachers having one to three years experience. Six teachers have four to nine years experience. Ten teachers have 10 - 19 years experience. Four teachers have 20 or more years experience. The percentage of teachers who have master's degrees is 38.10%.

The average pupil per teacher ratio is 16:1. This ratio is calculated by taking the number of all instructional personnel whether or not they have students assigned to them and dividing it into the student population. The actual classroom ratio is 22:1 for kindergarten, 21:1 for first grade, 22:1 for second grade, 23:1 in third, 31:1 in fourth, and 31:1 in fifth.

The school has distinguished itself as an educational leader by piloting new programs which involve the cooperation of business and community leaders. It has established a model mentor program for "at-risk" children. The school has a high degree of parent involvement with more than 100 volunteers contributing over 5,000 volunteer hours this year.

Instructional delivery takes place in self-contained classroom models for K-third grades and a departmentalized program in fourth and fifth grades. The children enrolled in the part-time learning disabilities program are served through an in-class consultative model. The staff actively participates in restructuring for school-based management.

In the role of elementary specialist, the writer works closely with teachers, students, and administrators. The elementary specialist is

responsible for keeping staff updated on curriculum issues, providing needed professional development, recommending and ordering curriculum materials for teachers and students, monitoring student progress, handling student discipline matters, meeting with parents on school issues, counselling students and teachers, facilitating exceptional education referrals, coordinating staffings for exceptional education programs, advising the principal on curriculum and budget needs, coordinating the volunteer program, doing kindergarten screening, and being acting principal in the principal's absence. This elementary specialist is a member of the School Improvement Team, Teacher Support Team, Personnel Committee, Curriculum and Instruction Committee, Discipline Committee, Student Needs Committee, ad hoc member of the Mentor Task Force, the school district's Blue Ribbon Mathematics Committee, District Committee for Evaluation of Teachers, and the county's Business Partnership Task Force. The elementary specialist's overall role is one of support--facilitating the most effective learning environment possible for both children and adults connected with the school.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

Kindergarten and first grade teams at the school site met regularly and frequently to coordinate curriculum ideas. This did not occur with other grade levels. Philosophically, a whole language approach for reading and integrated language arts was supported. However, in grades two through five, subject area delineation was clearly obvious. No grade levels met regularly for the purpose of integrating curriculum.

In the fall of 1992 at the monthly meeting of grade level chairpersons, the building principal presented a form to guide teams in planning for integrating curriculum. There was a brief discussion of the importance of integrating curriculum and making disciplines connect. The grade chairs were then asked to return to their respective teams and meet to discuss the common threads in classes and how integration might begin. Teams met but were unable to plan successfully for integrating curriculum. The process of meeting to plan for integrating curriculum did not continue. The form presented by the principal was not used beyond the teams' initial or required meeting. Teachers verbally expressed to the elementary specialist the feelings of frustration which were commonly felt by team members as

attempts were made to plan for integrating curriculum. Team members were not sure how to go about planning for integration or what should be integrated.

Briefly stated, the problem was: there was need for teachers to understand what an integrated curriculum was and how to plan for implementation.

Problem Documentation

Evidence from the local school showed the problem existed. Proof of the problem was indicated in the results of the Readiness for Curriculum Integration Survey (see Appendix A). This survey was done after the teachers' unsuccessful attempts to plan for curriculum integration. The Readiness for Curriculum Integration Survey showed only 5 of 23 teachers strongly agreed that the concept of an integrated curriculum was clear to them. Additionally, the survey showed only 2 of 23 teachers strongly agreed they knew how to plan for curriculum integration. On the same survey, only 5 of 23 teachers strongly agreed they knew how to effectively collaborate with teachers.

During the spring of 1992, a staff needs assessment was done by the School Improvement Team. The results were presented at the staff orientation meeting at the beginning of the 1992 - 1993 school year. The needs assessment showed communication among staff members as a major concern. Concerns were ranked in priority order with seven being the highest priority. Communication was ranked as seven. The report clarified

that communication problems included discussion regarding curriculum matters between teams and among team members.

The elementary specialist had an interview with the building principal to discuss the status of planning for curriculum integration. The principal's information revealed two of the six grade level teams had planning meetings in response to the request for planning for integration. Kindergarten and first grades submitted the form which the principal had suggested for planning meetings. The plans were reflective of current integration but did not show new ideas for broadening integration. They did not show ideas for communicating with other grade levels for vertical planning. The principal did indicate that although there had been a high degree of collaboration at the kindergarten level in the past, at the present time there had been some breakdown in collaborative planning. The principal indicated the other grade levels were not successful in initial attempts to plan for curriculum integration and did not submit forms showing successful planning.

Causative Analysis

There were several probable causes for the existing problem. An informal survey of the teachers found only kindergarten and first grade teachers had attended workshops or inservices which were specifically related to integrating curriculum. The collective staff had not had staff development related to curriculum integration and limited exposure to research supporting or defining curriculum integration. The staff had not been introduced to the various models of curriculum integration. There had been no schoolwide plan to inservice the school staff although more

curriculum integration was desired. The staff was a highly trained staff. Teachers participated in professional growth activities on an individually selected basis. Within the school district, there had been limited offerings for staff development on integrated curriculum other than for K - two teachers. There had been no effort to bring this particular training to the teachers at the school site. The fact that the entire staff had not had training in this area contributed to the problem.

All teachers at the school site had not had training in group processing. This was a contributing factor in the breakdown of team meetings. It had been observed by the elementary specialist that team meetings operated without an agenda. Meetings were usually called to address an immediate need or problem. When team meetings were held, a problem-solving process was not used when appropriate. Meetings were impeded when points were belabored or members went off on tangents. This occurred because teachers as a total staff had not had training related to group process. Often only those who were most vocal contributed during team meetings due to the lack of group process training.

Teachers had not participated in social or work behavior styles awareness activities. It had been observed that teachers' responses to the behavior style of particular team members created barriers in team meetings. The staff had not done a styles inventory, so many staff members were not even aware of their own style of interpersonal interactions. When starting to work on an area in which many members felt unsure, members had responded negatively to suggestions because of the behavior style of a team

member rather than the content of the suggestions. This had impeded initial attempts to plan for curriculum integration.

Teachers attempted to do too much too quickly without adequate planning time. The only regular common planning time for teachers was from 8:00 A. M. until 8:30 A. M. each day. During that time teachers felt the need to prepare for students' arrival at 8:30 A. M. Teachers felt constrained by that time limit. A subject for discussion could barely be introduced before it was time to stop. Even that short common planning time was not consistently available, since some team members had other duties such as hardcourt or bus duty at the same time. Faculty meetings were held at that time twice a month. Other committee meetings met at that time and those meetings drew various team members. The frustration of not being able to accomplish what was felt to be required resulted in a further breakdown in planning. Additionally, team members came to the brief meetings without needed background information to plan for curriculum integration.

Teachers at the school site did not have a picture of what was going on vertically with regard to curriculum. Primary teachers did not see the direct curriculum connection from primary to intermediate and vise versa. On the Readiness for Curriculum Integration Survey, one teacher of 23 strongly agreed to being familiar with the K - five curriculum. That teacher was the language and speech pathologist who worked with all grade levels. On that survey, only the language and speech pathologist strongly agreed to being aware of the curriculum content one grade level above and below. Not

knowing the curriculum connections contributed to the lack of success in planning for integrated curriculum. This lack of awareness was perpetuated by the absence of curriculum articulation meetings which helped teachers see the global curriculum picture for the school.

Relationship of the Problem to the Literature

Caine and Caine (1991) explained the benefits of interdisciplinary teaching and/or integrating curriculum. Research on the brain showed the brain looks for patterns and connections. When curriculum was integrated, more meaning could be made of other content areas. According to Campbell (1982), redundancy was an important key to understanding. When the same idea or message was received in different settings (integrated curriculum), understanding was reinforced. The literature found agreement among educators and researchers that integrating curriculum helped make learning meaningful. Drake (1993) believed curriculum integration made sense because subject areas were connected in ways that reflected real world connections, therefore, making learning more relevant. While these and other authors supported the idea of curriculum integration as beneficial and needed, there were barriers which prevented planning and implementation (Jacobs, 1989).

Jacobs (Brandt, 1991) identified the biggest obstacle to interdisciplinary planning as people trying to do too much at once without the proper knowledge base. Not only was time required for planning specific lessons and activities, time was needed for collaboration and coordination among colleagues or team members. The lack of needed common planning time

contributed to constraints on successful curriculum integration. Jacobs (1989) suggested there existed a misconception that schools had good vertical articulation within subject areas.

Wasley (1992) explained that most teachers were accustomed to working solo rather than in teams. It could not be assumed that teachers knew how to collaborate. Lack of collaboration skills created obstacles to interdisciplinary planning efforts. Territoriality of teachers impeded change since disciplines were no longer considered mutually exclusive.

Wasley (Willis, 1992) identified teacher isolation as one of the strongest detriments to professional growth. Wasley (1992) and Maeroff (1993) identified the structure of the school day and scheduling as problems encountered when planning. The authors cited lack of time for planning as an obstacle.

Interpersonal conflicts and lack of communication skills contributed to the breakdown of curriculum integration (Caine & Caine, 1991).

Maeroff (1993) related that team functioning was limited by not having sufficient experience with the process for change. Lack of knowledge on the teachers' parts reduced the team's ability to function well. As others have described, school schedules and lack of time deterred school teams when change was attempted.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Expectations

The following goals and outcomes were projected for this practicum: (a) Teachers will have a common knowledge (concept) base of an integrated curriculum, and (b) teachers will demonstrate positive (effective) behaviors in team planning for the integrated curriculum. Further, it is expected that this practicum will stimulate an interest in regular collaboration between and among grade levels.

Expected Outcomes

The following outcomes were projected for this practicum: (a) Teachers will have an awareness of the various models of curriculum integration and (b) understand how to collaborate and plan for curriculum integration. After the practicum implementation:

1. Results of a posttest will show 18 of 23 teachers understand the concept of an integrated curriculum.

2. A review of lesson plans will show 18 of 23 teachers know how to plan for curriculum integration.

3. An attitude survey will show 18 of 23 teachers feel communication has improved.

4. Logs of planning sessions will show five of six teams had planning meetings that resulted in plans for integrating curriculum.

Measurement of Expected Outcomes

The pre/posttest (see Appendix B) entitled "Curriculum Integration Assessment", which was developed by the writer, consisted of twenty content specific questions related to design and implementation of integrated curriculum, group process, and behavior styles. Teachers were asked to give free response answers. Eighty percent of questions answered correctly was considered mastery of content presented. The design and content of the pre/posttest were selected to: (a) assist the writer in determining the areas of the content that needed more emphasis during training and (b) help teachers maintain focus on the knowledge base which was desired to be developed during the training sessions.

Subsequent to the practicum implementation, lesson plans were reviewed by the principal and elementary specialist for the specific purpose of notating integrated curriculum activities. Teachers received written comments and suggestions from the principal and the writer.

A teacher survey (see Appendix C) developed by the writer entitled "Survey to Measure Schoolwide Communication about Curriculum" used a rating scale from one (strongly disagree) to five (strongly agree) to measure teachers' perception about improvement and/or degree of communication about curriculum issues. A response was considered positive if rated four

(agree) or five (strongly agree). The survey also allowed for essay responses on perceptions of communication. The questions focused on communication among grade level team members, between grade levels, and schoolwide communication about curriculum.

A team planning log was maintained during the weekly planning sessions. The log consisted of the agenda, team members present, facilitator's name, recorder's name, results of the meeting, and items to be discussed at next meeting. Maintenance of the log showing team members present, agenda addressed and discussion topics for the next meeting was considered to be evidence of productive planning.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation Solutions

Teachers at the school site needed to understand what an integrated curriculum was and how to plan for implementation.

The literature suggested several strategies for training and planning for curriculum integration. Jacobs (1991) identified an action plan whereby multidisciplinary units could be developed and successfully adopted. Phase one was internal and external research. Teachers were involved in small group research efforts which resulted in an awareness of what grade levels taught month by month. External research was conducted by teachers attending inservices, conferences, and readings. The second phase was developing a proposal which included evaluation procedures, budgets, time lines, and teachers' responsibilities. Jacobs suggested a long-term agenda would help with allaying the perception of experimentation that was inherent in a pilot. Phase three consisted of implementing and monitoring a pilot. Data collected during monitoring was considered to be the major factor in the pilot's success. The final phase of the plan was adopting the program. After revisions were made, the pilot was made a permanent part of the

program. Having program status was key to avoiding dissipation of the pilot.

Wasley (Willis, 1992) felt the process of planning together was as important as the product of curriculum integration. Working together collaboratively was seen as a benefit of planning for integrating curriculum. Collegiality was fostered by the planning process.

Maeroff (1993) viewed the process of team building as a way to avoid resistance to change. The author contended that professional development built on the work of teams oriented a school toward intellectual renewal. Maeroff believed educators could benefit from the lessons of business and industry in the use of teams as leaders in the change process. The author recommended team members attend a week long academy away from the school setting and away from the regular routine of school. Maeroff (1993) reported on a program offered through the University of New Mexico and Michigan State University and supported by the Rockerfeller Foundation. The purpose was to help teachers learn how to introduce change. Teacher teams, which always included the building principal, participated in team building training. The training included introduction to analyzing school conditions and how to devise strategies for improvement. The training allowed participants to reflect on their own experiences and give feedback. Keeping journals was encouraged. Debriefings regarding what went well and what did not were important. The process skills learned enabled teachers to be more constructive and productive. It was found that teams grew stronger as members recognized each other's strengths.

Drake (1993) reported on efforts toward curriculum integration in school districts in Ontario, Canada. Commonalities were found among the various team planning efforts. The author found initial resistance to be a common factor and the need to support teachers through the resistance was essential. Having a collaborative vision was a necessary first step in planning for integr Initial planning efforts varied from five days to a year. When teachers were given common blocks of time to plan, more progress was made. Drake also found that orientation sessions with "experts" offering a vision of integrated curriculum and how to plan for it were beneficial. Drake felt that undergoing the process of planning for integrated curriculum was the most important aspect of developing integrated curriculum. It was found that a common need for planning teams was an awareness of group dynamics. Drake (1993) agreed with Wasley (Willis, 1992) that since teachers were accustomed to working in isolation, skills for working collaboratively should be developed.

Gough (1993), editor of Phi Delta Kappan, reported results of team-building efforts at University School in Bloomington, Indiana. Although the efforts were not formal, it was confirmed that continuous collaboration by team members fostered innovation. The support of the building principal in the team efforts was seen as essential. Other essential elements to the team process for solving problems were discussions of research that applied to practice, working cooperatively to solve problems, and capitalizing on strengths of team members.

The writer's examination of the literature revealed factors to be considered when planning for educational change. Teachers' needs and readiness levels for change impacted on the time it took to progress. There was evidence to show that strategies for change which integrate teacher development and school improvement should be based on clarity of information, understanding of the processes involved, knowing the school climate and the personalities or psychological states of the teachers involved. According to Hopkins (1990), success also included having the educational aims directly related to curriculum innovation. Resistance to change and how to overcome it needed to be considered when planning for training sessions, as well as strategies for working with adult learners (Silberman, 1990).

Jacobs' (1991) action plan for curriculum integration appeared to be a sound, logical approach to planning for curriculum integration. The critical elements of ongoing monitoring and evaluation contributed to the success of the plan. This plan was designed for three years. At this point, the teachers at the school site who would be involved in the practicum implementation would have difficulty with that timeline. More immediate results would be needed for teachers to stay involved. The primary components of the plan could be followed over a shorter period. The research base approach made this plan credible.

Since the Readiness for Curriculum Integration Survey indicated teachers did not know how to plan together productively, Wasley's (Willis, 1992)

support of the importance of the planning process seemed highly pertinent for this situation.

Maeroff's (1993) view of team building as a way to avoid change resistance had merit. Although it would not be feasible for teachers to meet at another location or attend an academy, certainly the climate of the training could be such that teachers would feel they were away from the routine of the day. Maeroff's suggestion of identifying team members' strengths would be particularly beneficial to this staff.

Drake (1993) seemed to have the most practical approach to planning for curriculum integration. This probably was due to the synthesis of experiences of efforts in many locations. Attention was paid to the reality of initial resistance and the practical aspects of common planning time. For this to make sense to teachers, they needed to see how it could be related to the everyday work experience. Drake (1993), like Wasley (Willis, 1992), emphasized the importance of the group process. Again, teachers at the school site would see the feasibility and practicality of knowing how to have meetings with results.

All of the researchers, including the informal efforts reported by Gough (1993), stressed the understanding of group dynamics as critical to planning for curriculum integration. Teachers at the school site would be receptive to understanding the working behavior styles of their colleagues.

Description and Justification for Solution Selected

The writer planned five steps to solve the current problem:

1. The pretest covering components of curriculum integration, group processing skills, and work behavior styles would be given to 23 teachers. Although the results of the Readiness for Curriculum Integration Survey gave information about the readiness level of the staff, the pretest would give more detail about the gaps in knowledge about curriculum integration. This would allow the writer to identify the areas that needed more concentration during the training sessions.

2. Current literature on curriculum integration would be distributed. Articles from Educational Leadership (Brandt & Scherer, 1991), which focused on integrating the curriculum, would be given to teachers. Planning the Integrated Curriculum: The Call to Adventure (Drake, 1993) would be shared. Both of these publications would give teachers a solid foundation of research which supported the need for curriculum integration and design and implementation factors to be considered. Audio tapes (Association for Supervision and Curriculum Development [ASCD], 1992) on curriculum integration would be available for teacher checkout. Jacobs (1991), Gough (1993), and Drake (1993) stressed the importance of having a research based-foundation before pursuing planning and implementation of curriculum integration.

3. Training sessions would be provided on the need for integrating curriculum, group processing skills, and team building. The sessions would be held at the school site. Six sessions lasting approximately two hours

each would be held after school hours. The training sessions would expose the teachers to various models of curriculum integration. Interdisciplinary Curriculum: Design and Implementation (Jacobs, 1989) would be used as a resource for the models presented. The group processing strategies from Facilitative Leadership (Interaction Associates, 1988) would give the teachers a process for holding productive and positive team planning sessions. Wasley (Willis, 1992), Maeroff (1993), Drake (1993), and Gough (1993) identified group process skills as critical to planning for change. It had been noted that teachers at the school site had not collectively had training in group processing. In order for the training to be most effective, the colleagues needed to go through the training together. Since the teachers had not collectively done a personal behavior styles profile, many were not aware of how behavior style impacted on the group process. Maeroff (1993) strongly supported team building as a cornerstone for educational change. An important part of team building was the understanding of the various behavior styles of team members. During the training sessions, the teachers would be given information on the dimensions of behavior (Blocker, 1990). Teachers would do the Personal Profile System (Geier, 1990) which is a personal behavior style instrument designed to identify the work behavior style of the teacher, increase the appreciation for different work styles, and help identify and reduce potential conflicts with others.

4. Team planning sessions would be coordinated. Lack of common planning time was identified by Jacobs (Brandt, 1991) and Wasley (1992)

as a constraint to implementing curriculum integration. The teachers at the school site had not had adequate common curriculum planning time. The principal and elementary specialist would work with the special area teachers to develop a schedule that supported common plan times for team teachers. Grant monies would be allocated to pay teachers for curriculum planning after the school day. The principal and elementary specialist would schedule quarterly curriculum meetings to insure vertical articulation.

5. The posttest would be administered at the end of the last training session to measure the degree of success of the training. The Survey to Measure Schoolwide Communication about Curriculum would be given to determine the perception of communication among teams members and between teams. Logs of team meetings for planning integrated curriculum will be maintained and reviewed by the writer.

Report of Action Taken

Prior to implementation, the writer met with the principal to schedule the dates of the training sessions so there would be no conflict with other school activities. There was a discussion of events that had taken place which impacted implementation and expected participation. During the summer and before school startup, controversy over a school policy/procedures issue resulted in harsh criticism by a very vocal and influential group of parents. The situation resulted in a rift between parents, teachers, and administration which strongly impacted school morale. Additionally, the school opened with active construction and renovation going on. All classrooms were not ready for occupancy, therefore, some

classrooms were shared. There was no communication system other than seven walkie talkies at various locations in the school. These conditions caused concern for children's safety and further heightened teachers' and parents' anxiety. Further impacting the low morale, the week before school opened, a beloved staff member was killed in a bizarre accident; an event that had media attention for many weeks.

The preceding events which dramatically impacted school morale and trust levels between and among constituencies, prompted the building principal to ask for assistance from the school district. An assistant superintendent, two of the school superintendent cabinet members, a prevention/intervention specialist, the school psychologist, and the writer met with the principal to discuss issues and determine what support could be provided from the district office. During this discussion, one of the strategies suggested by the district office personnel was having the staff take part in Facilitative Leadership (Interaction Associates, 1988) training which would provide tools for problem solving. An introduction to this had been planned as a component of the practicum proposal. The group from the district office felt someone outside the school needed to present this particular training due to the sensitive state of many staff members. The decision was that the building principal would arrange Facilitative Leadership training for the staff later in the school year.

During the weeks preceding implementation, the writer worked on trust building with staff members by increasing support and encouraging dialog between and among constituencies. The writer invited and encouraged all

teachers to attend and participate. Ten of 23 teachers agreed to participate, five had previous commitments, eight declined to participate. Implementation proceeded as follows:

Pretest and Dissemination of Research

Because of the school climate issues and since the posttest would measure mastery of concepts presented during training, only teachers who were participating in the training sessions were requested to take the pretest. Articles from Educational Leadership (Brandt & Scherer, 1991) were distributed to all teachers. "What Biology of the Brain Tells Us About Learning" (Sylwester, 1994) published subsequent to the proposal was also distributed. The article was selected to provide background for brain research information that connected to the need for curriculum integration being presented in the first training session.

"Interdisciplinary Learning" (Willis, 1992) as well as additional articles from Educational Leadership (Brandt & Scherer, 1991) were distributed the second week of implementation. The articles gave a thumbnail sketch of issues related to curriculum integration and introduced terms related to the topic.

Training Sessions

Training sessions began the third week of implementation. The writer was the presenter in all sessions. The first training session introduced the research background for curriculum integration. The group listened to a portion of An Integrated Curriculum is the Foundation for Brain-Compatible Learning (Kovalik, 1992), an audio tape presentation on brain research as a

basis for integrating curriculum, which was followed by a discussion of the concepts presented. The complete set of audio tapes (ASCD, 1992) on curriculum integration were made available for teacher checkout. The teachers participated in a role playing activities which clarified elements of brain research related to curriculum integration. Excerpts related to brain research published in Making Connections: Teaching and the Human Brain (Caine & Caine, 1991) were distributed and discussed. There was an introduction and discussion of design and implementation issues. Segments of Virtual Nature (Churchill & Boydstun, 1992) were shown to demonstrate how concepts from various disciplines could be connected. The session concluded with an overview of future training sessions and the training session evaluation as did all subsequent sessions.

The second training session introduced various models of curriculum integration. Interdisciplinary Curriculum: Design and Implementation (Jacobs, 1989) and the video companion, Integrating the Curriculum, (D'Arcangelo, 1993) were the major content resources. A handout outlining and defining curriculum integration models and design options was distributed. The participants worked in small discussion groups after watching the video to identify and discuss advantages and disadvantages of the models and design options. The whole group then discussed the design options that seemed most appropriate and most adaptable to the school site. The session also explored the significance of curricular themes. The article, "Choosing a Theme," (Staff, 1992) was used as a link to the upcoming training on team planning and group process.

The third and fourth training sessions concentrated on group process. The focal points were the team planning session and whole school planning. Integrating the Curriculum: Part II (D'Arcangelo, 1993) was shown. The video explored horizontal planning, vertical planning, and curricular themes. The planning process was demonstrated through curriculum mapping and planning curricular units. Teachers worked in small groups to practice using a planning wheel and develop essential questions for a unit or theme as had been demonstrated in the video. Information from Facilitative Leadership (Interaction Associates, 1988) was used as the model for having productive planning sessions and team meetings. The component covered types of meetings, how to accomplish the task, preparation for meetings and planning sessions, constructing an agenda, using a team planning log, and decision-making models.

The last segment of the training sessions dealt with team building. Information Educational Leadership for the 21st Century (Blocker, 1990) was used to present structure and consideration behaviors of peak performing teams. The Personal Profile System (Geier, 1990) was used as a basis for discussing how work behavior styles related to dominance, influencing of others, cautiousness/compliance, and cooperation impact the effectiveness of a team. The teachers discussed perceptions of self-style and styles of others and the relationship to team functioning. Teachers participated in an activity which identified commonalities, strengths, and unique characteristics. Small groups presented the findings to the whole group. The final session concluded with the posttest, the Survey to

Measure Schoolwide Communication about Curriculum, and the school district's inservice evaluation.

Refreshments and door prizes were part of each session. An ice breaker activity which linked to the training was used at the beginning of each session. The writer had a great deal of concern regarding time parameters and starting on time so all elements of the training could be presented. There was also an awareness of teachers' value of time and knowledge of the concern to be released on time. The first session, however, revealed the expressed need of teachers to have a short time to transition from the formal school day and refocus for the training. Some time was wasted during the first session due to not planning for the transition time. In subsequent sessions, the trainer allowed time for that transition, consequently, teachers had much better focus from the outset and productivity level was higher.

Team Planning

During the third and fourth months of practicum implementation, the writer attended grade level team planning sessions and reviewed horizontal curriculum planning. The writer, acting as a resource for curriculum planning sessions, made suggestions to teams that encouraged reflection on the training which had taken place. The writer had originally scheduled two weeks for this phase of the implementation. Replication should take into account the need for flexibility in scheduling team meetings. School activities, spring break, and schoolwide achievement testing inhibited ease of scheduling. The writer worked with the principal, special area teachers,

and other staff members to develop a school schedule that would ensure common planning times for team teachers. Grade level chairpersons were designated as the Curriculum and Instruction Committee. The writer and building principal met with the committee on a regular basis to discuss curriculum issues and insure vertical articulation.

Review of Lesson Plans

Lesson plans were reviewed by the writer and the building principal. Written comments and suggestions were given to the teachers.

CHAPTER V

RESULTS, DISCUSSION, AND RECOMMENDATIONS

Summary of Problem and Solution Strategy

At the school site, no grade levels were meeting regularly for the purpose of integrating curriculum. Teachers were uncertain how to go about planning for curriculum integration. There was a need for teachers to understand what an integrated curriculum was and how to plan successfully for implementation.

To reach the goals and objectives of the practicum, the writer implemented a solution strategy that included five steps:

1. A pretest covering components of curriculum integration, group processing skills, and work behavior styles was given to teachers to identify training needs.

2. Current literature on curriculum integration was distributed. The publications gave teachers a research foundation which supported the need for curriculum integration and the design and implementation factors that needed to be considered.

3. Training sessions provided information on the need for integrating curriculum, group processing skills, and team building. The training exposed

teachers to various models of curriculum integration, provided opportunities to practice group process skills, and clarified how personal behavior style impacted group process.

4. Planning sessions were arranged for grade-level teams to plan for curriculum integration.

5. A posttest, teacher attitude survey, review of lesson plans, and review of logs of team meetings were used to measure results of the implementation.

Results

Outcome A - Teachers Will Have an Awareness of the Various Models of Curriculum Integration

After the practicum implementation, results of a posttest were expected to show 18 of 23 teachers understood the concept of an integrated curriculum. Results of the posttest showed 10 of 23 teachers understood the concept of an integrated curriculum. To show mastery of the content presented during training, 80 percent or more of the questions had to be answered correctly on the posttest. Ten teachers participated in the training and 10 teachers took the posttest at the end of the training.

Outcome B - Teachers Will Understand How To Collaborate and Plan for Curriculum Integration

A review of lesson plans was expected to show 18 of 23 teachers knew how to plan for an integrated curriculum. A review of lesson plans showed

20 of 23 teachers knew how to plan for curriculum integration. Lesson plans of all teachers were reviewed. The specific purpose of the review was notating integrated curriculum activities. The review revealed integration activities across disciplines, and showed coordination and integration of activities across the grade level. The review showed vertical integration between grades four and five.

The results of an attitude survey were expected to show 18 of 23 teachers felt communication had improved. Nineteen of 23 teachers responded to the "Survey to Measure Schoolwide Communication about Curriculum". Fourteen of 23 teachers responded positively to the item related to improvement in communication (see Appendix C). A rating of four or five was considered to be a positive response. Nine of 10 teachers who attended the training sessions responded with positive ratings, while 5 of 9 respondees who did not attend the training responded positively. Free response comments on the survey showed 10 of 23 teachers felt communication had improved. Nine of the ten free response comments were from teachers who attended the training sessions.

Logs of planning sessions were expected to show five of six grade level teams had planning meetings that resulted in plans for integrating curriculum. Team planning logs showed five of six teams held planning meetings that resulted in plans for integrating curriculum. Maintenance of the planning logs consisted of the agenda, team members present, facilitator's name, recorder's name, results of the meeting, and items to be discussed at the next meeting. The agendas showed planning for

curriculum integration with plans for continued discussion. All team members were present for planning during the team sessions.

Discussion

Understanding Concepts of Integrated Curriculum

There are several possible explanations for a lower level of understanding of concepts than projected. Participation in the training sessions was critical to the mastery of concepts presented. When the Readiness for Curriculum Integration Survey was done, 21 of 23 teachers responded positively to attending training sessions which would be held after school hours. The number of teachers expected to be involved was based on the data received from the survey. As previously stated, unexpected events took place which affected school morale and willingness to participate. Ten teachers participated in the training rather than the expected 21. The posttest results of those who participated, suggest that the projection for the mastery of concepts would be met with a higher participation level. One of 10 teachers who participated in training exhibited mastery on the pretest, while all participants demonstrated understanding the concepts of an integrated curriculum by exhibiting mastery on the posttest. Maeroff (1993) and McDonald (1989) gave possible explanations for the expectation of participants' mastery of concepts. Maeroff (1993) identified a high degree of mastery could be related to the content being so closely related to the needs of students. The author discovered that training for team building that was not focused on the serious needs of students might appear peripheral and, therefore,

may not have a high degree of teacher investment. McDonald (1989) found teachers related theory to practice more highly when given a moderate exposure to new techniques or strategies. Both Maeroff's (1993) and McDonald's (1989) findings gave validation to the high degree of mastery and teachers' willingness to relate theory to practice. Evaluation comments such as, "It's nice to know that we are working on a real problem that applies to all teachers," and "Very appropriate to where we are now," indicated a high degree of relevance to teachers. Considering the elements suggested by Maeroff (1993) and McDonald (1989) were present during training, the evaluation comments made by teachers, and the high level of mastery of concepts by participants, it might be concluded that posttest mastery would be similar with a higher participation level.

The research literature gave other factors that may have helped to increase participation and, therefore, increase the number of teachers who mastered the concepts. Fear of change may have affected attendance. While it was safe to show on the survey a willingness to participate in training, the reality of putting curricular change into action may have been too threatening for some to actively participate (Barth, 1990). Further, Beckhard and Harris (1987) suggested that for staff members to be willing to risk the anxiety and possible losses associated with innovation, the changes should be espoused by someone who is trusted. As previously stated, trust levels were low among staff members and administration.

Barth (1990) suggested the principal's level of participation impacted teacher participation. While the principal announced the training sessions in

faculty meetings, there were no statements indicating importance of attending. The principal was in attendance during the training for a short time during two sessions. A variety of appointments and events precluded full attendance. Consequently, even though the principal was fully supportive of the practicum implementation and the concepts presented, the visible evidence to the faculty was not there. Barth (1990) cited the importance of the principal modeling active learning. The author suggested if the expectation is to have a community of learners in the school, the principal needs to be viewed as the head learner in new endeavors. Maeroff (1993) reinforced the importance of the principal's participation in promoting change initiatives through team building efforts. According to the author, attacks on change efforts are less likely when the principal was a participant and endorser. When principals were part of the training, there was more likelihood that there would be shared convictions about the team's efforts. In view of these findings, the writer suggests impressing upon a principal the importance of full participation.

Review of Lesson Plans

When lesson plans were reviewed, evidence of planning for curriculum integration was noted for 20 teachers. Furthermore, the principal noted there was a higher degree of discipline integration than had been evidenced previously. Integration activities were more extensively done by the teachers who participated in training. The review revealed a link to team planning sessions. There was clear indication from lesson plans that discussion on integrated curriculum agenda items were put into action. Also

noted was evidence of coordination among grade level members. There was, however, no indication of vertical planning among grade levels except with grades four and five. There were four teachers in grades four and five. Three of the four participated in training. The two grade levels elected to have a common planning time prior to the beginning of the school day. The absence of vertical planning, exclusive of grades four and five, appeared to be a direct result of the entire staff not being trained at the same time and lack of a common planning time for the entire staff.

Attitude Surveys

The projected results related to improvement in communication were not met by the proposed measurement. While 14 of 23 teachers indicated communication had improved, according to the Survey to Measure Schoolwide Communication about Curriculum, free response comments indicated the perception of improvement between and among grade levels was basically among those who attended the training and had exposure to team-building strategies. Teachers' comments did show that grade level teams communicated more about integrated curriculum even though some team members were not part of the training. Narrative responses related that teachers felt there was not enough time provided for collaboration. P. Aschbacher (personal communication, March 8, 1994), Project Director at UCLA's Center for the Study of Evaluation and the National Center for Research on Evaluation, Standards, and Student Testing, confirmed the significance of teacher collaboration for successful implementation of curriculum integration. The three-year evaluation (Aschbacher & Herman,

1991) of the Humanitas program identified teacher collaboration as the critical element. The essential element of time to collaborate was described as a continued concern of teachers in the Humanitas programs. Aschbacher (1991) found that even when teachers have been trained in group dynamics and group processing, communication can be perceived as poor when there is no time available for communicating. The report of the National Education Commission on Time and Learning (1994) had as one of its recommendations to give teachers the time needed for " . . . preparation, planning, cooperation, or professional growth" (p. 36). The Commission viewed this as one of the elements essential to being able to provide a quality education.

Of significance were the unexpected results of data related to communication with and among special area teachers. The Survey to Measure Schoolwide Communication about Curriculum showed regular classroom teachers and special area teachers felt this was the weakest area of communication. Thirteen of the 19 responses on the item related to communication with special area teachers were rated below four. Three of 4 special area teachers responded to the surveys by giving a rating of one (strongly disagree) to the item related to meeting with their grade (team) on a regular basis for curriculum planning (see Appendix C). Narrative comments indicated this area in communication about curriculum had a significant impact on planning. Special area teachers had most difficulty meeting with grade level teams to plan.

Team Planning Logs

While common team planning times were provided, there was evidence that the results were related to participation in the training sessions. The grade level chairpersons from five grade levels participated in the training. The impact of the training was observed by the writer during team planning sessions as articulation was influenced by the grade level chairpersons' exposure to training. Agendas developed showed curriculum integration topics being discussed. The five teams that had representation during training planned specifically for cross-grade integration. As previously stated, the productive planning evidenced by maintenance of team planning logs was noted in the review of lesson plans.

Unanticipated Outcomes

Morale.

An unexpected outcome of the practicum implementation was the degree of enthusiasm shown by the participants. When training sessions started after the school day ended, teachers came to sessions tired from the school day, carrying the usual frustrations related to working in the school setting. At the end of each session, teachers appeared refreshed, in good humor, excited about the topic, and always expressing the thought that other staff members were "missing out".

Also unexpected was the momentum for planning that was shown by three grade levels. Typically, at the end of the school year, teachers are so exhausted that planning for the next year is not met with enthusiasm. Three of the teams maintained planning momentum through the last weeks

of the school year. Cohesiveness on those three teams grew and appeared to be a direct result of newly developed skills in planning, team process, and a keener awareness and acceptance of each other's styles.

Common language.

Another unexpected outcome was the quick development of a common language related to curriculum integration. The writer observed this in subsequent faculty and committee meetings when practicum participants spoke on the topic.

Training session evaluations.

Both the training session evaluation developed by the writer and the school district inservice evaluation were exceptionally positive in all categories. The mean rating for the training session evaluations was 4.68 on a rating scale of 1(never) to 5 (often). Narrative comments related the desire for all staff members to be involved in the training. The district inservice evaluations gave the highest possible rating in all categories with all respondees indicating willingness to participate in further training.

Spin-offs

School district waiver for planning and training time.

Three teachers who participated in the training, the principal and the writer were member of the school personnel committee. The committee's major function was to support the state Blueprint 2000 Education Goal (1991) to ensure professional teachers and staff. As the committee worked toward developing a staff development plan for the school, the research related to curriculum integration and the necessity of whole-group teacher

collaboration presented during the training became the research foundation for a waiver request for student early release days to allow teachers to have common time for training and vertical planning for integrated/interdisciplinary curriculum. During the process the school staff was requested to brainstorm how the school curriculum plan should be focused and what training was needed to make that happen. Teachers who had participated in the practicum implementation training took the lead in defining curriculum integration and its impact on practice. Each grade level presented its prioritization of ideas from the brainstorming session during a subsequent faculty meeting. Curriculum integration was identified by each grade level as the focal point for training and planning for the following year. Clearly, the research foundation and training participants had a positive impact on how other staff members viewed the significance of curriculum integration and the importance of both horizontal and vertical planning.

The personnel committee made presentations to the School Improvement Team, the PTA, and parent discussion groups. After surveying parents for support, the presentation and waiver request were presented to the school district's School Improvement Team. Subsequently, the district School Improvement Team made a recommendation to the school board that the waiver request be approved. The waiver request was unanimously approved.

Curriculum mapping.

Subsequent to the waiver approval, the writer was requested by the building principal to present the curriculum integration training to the entire

staff. Teachers' attendance for these sessions was mandatory. The whole-group training resulted in curriculum mapping through schoolwide horizontal and vertical planning.

Summary

The projected outcome of teachers having an awareness of the various models of curriculum integration was not demonstrated by the results of the proposed measurement. Lesson plans and team planning logs showed teacher did understand how to collaborate and plan for curriculum integration. The data suggested: (a) The mastery of concepts related to curriculum integration was a function of participation in training. The anticipated number of teachers participating was significantly lower than expected. Those who participated in the training demonstrated mastery on the measurement instrument. Clearly, issues related to school climate impacted on the participation level. Additionally, the expected participation level may not have been realistic based on the findings in the research (Barth, 1990; Beckard & Harris, 1987; Maeroff, 1993) related to educational change. (b) Examination of the results related to improved communication showed a link to participation in training. The teachers who attended had a higher level of perception of improvement than those who did not attend. (c) The data showed productive team planning and (d) evidence of curriculum integration activities that met or exceeded the projections. Lesson plans showed plans from team sessions were implemented.

Unexpectedly, the data from the Survey to Measure Schoolwide Communication about Curriculum revealed a strong concern related to

communication between special area teachers and regular education teachers and between and among special area teachers.

Of significance was the shift from theory to practice made by participating teachers. Furthermore, the results of the practicum suggested educators can enthusiastically embrace innovation grounded in solid research and theory and which is closely linked to meeting the needs of children. The results also crystallized the significance of all staff members being part of the communication network with time for collaboration and group dynamics being critical elements for success.

Recommendations

1. To improve vertical integration, a mechanism for regular school-wide articulation, training, and planning related to curriculum and curriculum changes needs to be established. The findings from the practicum implementation revealed extensive horizontal planning subsequent to implementation of the practicum, however, vertical integration was limited due to lack of school-wide planning and training time.

2. Team-building training should continue and include the entire staff. The findings from the practicum showed that the teachers who were exposed to training had higher ratings for perception of improved communication than those who were not exposed to training.

3. Strategies should be developed to ensure the inclusion of special area teachers in planning and developing the integrated curriculum and fostering communication. The unexpected low ratings on communication with and between special area teachers and the free response comments of teachers

suggest strategies need to be developed that discourage isolation and disconnectedness of special area teachers.

Dissemination

As previously stated, the writer was requested to present the curriculum integration training to the entire staff in attendance-required sessions at the end of the school year. Those who had already participated in the training were enthusiastic about the follow-up and worked positively with those who had not had the initial training. There was consensus regarding the need to continue with further training during the next school year.

The training elements of the practicum were shared with the school district elementary specialists at a curriculum summit. There was particular interest in how the process linked to the development of a staff development plan for the school. The training components will be made available to the district through the director of school programs and the writer will consult with school staffs as requested.

The writer will provide an overview for the school district curriculum orientation at a workshop presented at the beginning of the next school year. The practicum research and results will be disseminated to teachers new to the district and other school district personnel interested in the district curriculum direction.

The training components of the practicum will be made available to the district through the director of school programs and the writer will consult with school staffs as requested.

References

Aschbacher, P. (1991). Humanitas: A thematic curriculum. Educational Leadership. 49 (2), 16-19.

Aschbacher, P. & Herman, J. (1991). The Humanitas program evaluation. Los Angeles: University of California, Los Angeles, Center for the the Study of Evaluation, Graduate School of Education.

Association for Supervision and Curriculum Development. (1992). Curriculum integration mini-conference (Cassette Recordings No. 612-92131). Front Royal, VA: National Cassette Services, Inc.

Barth, R. (1990). Improving schools from within. San Francisco, CA: Jossey-Bass Publishers.

Beckard, R. & Harris, T. (1987). Organizational transitions, 2nd ed. Reading, PA: Addison-Wesley.

Blocker, B. (1990). Educational leadership for the 21st century. Everett, WA: Professional Development Institute.

Blueprint 2000 Education Goals, Florida School Laws Chapter 229 Sections 229.59-229.594, F.S. (1991).

Brandt, R. (1991). On interdisciplinary curriculum: A conversation with Heidi Hayes Jacobs. Educational Leadership. 49 (2), 24-26.

Brandt, R. & Scherer, M. (Eds.). (1991). Integrating the curriculum [Theme issue]. Educational Leadership. 49 (2).

Caine, R. & Caine G. (1991). Making connections: Teaching and the human brain. Alexandria, VA: Association for Supervision and Curriculum Development.

Campbell, J. (1982). Grammatical man: Information, entrophy, language, and life. New York, NY: Simon and Schuster.

Churchill, S. (Producer), & Boydstun, M. (Director). (1992). Virtual Nature [Video]. Berkeley, CA: The Nature Company.

D'Arcangelo, M. (Producer). (1993). Integrating the Curriculum [Video]. Alexandria, VA: Association for Supervision and Curriculum Development.

Drake, S. (1993). Planning integrated curriculum: The call to adventure. Alexandria, VA: Association for Supervision and Curriculum Development.

Geier, J. (1990). The Personal Profile System. Minneapolis, MN: Carlson Learning Company.

Gough, P. (1993). Teams work. Phi Delta Kappan, 74 (7), 507.

Hopkins, D. (1990). Integrating staff development and school improvement: A study of teacher personality and school climate. In Bruce Joyce (Ed.), Changing school culture through staff development (pp. 41-67). Alexandria, VA: Association for Supervision and Curriculum Development.

Interaction Associates, Inc. (1988). Facilitative leadership. San Francisco, CA: Author.

Jacobs, H. (Ed.). (1989). Interdisciplinary curriculum: Design and implementation. Alexandria, VA. Association for Supervision and Curriculum Development.

Jacobs, J. (1991). Planning for curriculum integration. Educational

Leadership. 49 (2), 27-28.

Kovalik, S. (Speaker). (1992). An integrated curriculum is the foundation for brain compatible learning. (Cassette Recording No. 612-92125). Alexandria, VA: Association for Supervision and Curriculum Development.

Maeroff, G. (1993). Building teams to rebuild schools. Phi Delta Kappan, 74 (7), 512-519.

McDonald, J. (1989). A reflective conversation about te,cher education. Harvard Educational Review, 95, 251-259.

National Education Commission on Time and Learning. (1994). Prisoners of time. Washington, DC: U.S. Government Printing Office.

Silberman, M. (1990). Active Training. San Diego, CA: Lexington Books.

Staff. (1992, November). Choosing a theme. ASCD Curriculum Update. (Available from Association for Supervision and Curriculum Development, 1240 N. Pitt St., Alexandria, VA), p. 4.

Sylwester, R. (1994). What the biology of the brain tells us about learning. Educational Leadership. 51 (4), 46-50.

Wasley, P. (Speaker) (1992). Curriculum integration: What are the structural changes and training needed to make it happen? (Cassette Recording No. 612-92127). Alexandria, VA: Association for Supervision and Curriculum Development.

Willis, S. (1992, November). Interdisciplinary learning. ASCD Curriculum Update. (Available from Association for Supervision and Curriculum Development, 1250 N. Pitt St., Alexandria, VA 22314-1453).

APPENDIX A

READINESS FOR CURRICULUM INTEGRATION SURVEY

READINESS FOR CURRICULUM INTEGRATION SURVEY

Date_____

Teachers, please indicate to what extent you agree or disagree with the following by circling a number on the scale (front and back). The number one will mean strongly disagree and the number five will mean strongly agree.

	Strongly Disagree				Strongly Agree
1. The concept of integrated/interdisciplinary curriculum is clear to me.	1	2	3	4	5
2. Children need to see connections in the various disciplines.	1	2	3	4	5
3. It is important to emphasize transfer of knowledge within and across subject areas and in everyday life.	1	2	3	4	5
4. I know how to plan for interdisciplinary teaching.	1	2	3	4	5
5. Common planning time is a critical element in effectively integrating curriculum.	1	2	3	4	5
6. I know how to effectively collaborate with teachers.	1	2	3	4	5
7. If training related to integrating curriculum (with inservice points) is available at the school site, I am willing to participate after school hours (once a week for four consecutive weeks).	1	2	3	4	5
8. I have an interest in what the research says about an integrated curriculum.	1	2	3	4	5

	Strongly Disagree				Strongly Agree
9. I would participate in professional development through readings done at my own discretion.	1	2	3	4	5
10. I have an awareness of the curriculum content in the grade above me and below me.	1	2	3	4	5
11. I am familiar with the K-5 curriculum.	1	2	3	4	5
12. I am familiar with the "special area" curriculum.	1	2	3	4	5
13. My grade level or area meets with one or more grade levels for planning at least once a month.	1	2	3	4	5
14. My grade level plans together on a regular basis (minimum twice a month).	1	2	3	4	5

Please check your area of teaching.

___ Primary

___ Intermmediate

___ Special Area

Comments:

APPENDIX B

CURRICULUM INTEGRATION ASSESSMENT

CURRICULUM INTEGRATION ASSESSMENT

Teachers, please answer the following questions as fully as you can.

Curriculum Integration

1. Why should we look at integrating curriculum?

2. Describe three design options for an integrated curriculum?

3. Identify three practical issue that should be considered when planning for curriculum integration.

4. How should you go about choosing "fertile themes"?

5. How does integrated learning serve the goal of the teaching of thinking?

6. Who should be involved in planning for integrated curriculum?

7. How much time is needed for planning for curriculum integration?

8. How do you handle the issue of basic skills when using an integrated curriculum?

9. What is the significance of the collaborative group process in planning for integrated curriculum?

10. Identify three obstacles to change and how to overcome them.

Group Process

11. Name five ground rules for team meetings.

12. Describe the "fishbone" approach to problem solving.

13. Describe three problem-solving tools and how they are used

14. What are facilitative behaviors?

15. Explain active listening and effective feedback?

Work-Behavior Style

16. Name four work behavior styles.

17. What happens to a person's work behavior style under pressure?

18. How does one increase effectiveness of work behavior style?

19. Choose one behavior style and describe its value to the organization (school).

20. How does an understanding of group dynamics facilitate team planning?

APPENDIX C

SURVEY TO MEASURE SCHOOLWIDE COMMUNICATION ABOUT CURRICULUM

SURVEY TO MEASURE SCHOOLWIDE COMMUNICATION ABOUT CURRICULUM

Teachers, please answer by circling the number which best describes your perception of communication about curriculum issues. The number one will mean strongly disagree and five will mean strongly agree.

	Strongly Disagree				Strongly Agree
1. My grade meets on a regular basis for curriculum planning.	1	2	3	4	5
2. I communicate on a regular basis with one or more grade levels about curriculum issues.	1	2	3	4	5
3. I communicate regularly with special area teachers about curriculum issues.	1	2	3	4	5
4. Communication about curriculum has increased since the inservice training on curriculum integration.	1	2	3	4	5
5. Communication about curriculum has improved since the inservice training on curriculum integration.	1	2	3	4	5
6. The group dynamics of our grade level meetings is good.	1	2	3	4	5

7. Describe how communication has changed between grade-level teams.

8. Describe how communication has changed among your team members.

Please check your area of teaching.

_____ Primary
_____ Intermmediate
_____ ESE
_____ Special Area