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## Devising And Executing Training Sessions For Parents In Critical Thinking

Joyce V. Galgano  
*Nova Southeastern University*

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1989

DEVISING AND EXECUTING TRAINING SESSIONS  
FOR PARENTS IN CRITICAL THINKING

by

JOYCE V. GALGANO

A Practicum Report  
submitted to the faculty of the Center  
for the Advancement of Education of Nova  
University in partial fulfillment of the requirements  
for the degree of Educational Specialist.

The abstract of this report may be placed in a  
national database system for reference.

June 1989

### Authorship Statement

I hereby testify that this paper and the work it reports are entirely my own. Where it has been necessary to draw from the work of others, published or unpublished, I have acknowledged such work in accordance with accepted scholarly and editorial practice. I give this testimony freely, out of respect for the scholarship of other workers in the field and in the hope that my work, presented here, will earn similar respect.

Signed *Jayce U. Salzano*

## Abstract

Devising and Executing Training Sessions for Parents in Critical Thinking.

Galgano, Joyce V., 1989: Practicum Report, Nova University, The Center for the Advancement of Education  
Descriptors: Critical Thinking/Logical Thinking/Productive Thinking/Parent Participation/Parent Education/Parent Child Relationship/Parent Student Relationship/Elementary Education/Primary Education/Intermediate Grades/Elementary School Students/

This project attempted to show the increased achievement of second grade students whose parents learned and applied critical thinking techniques. The implementation component encompassed a ten week segment: five training sessions and five written newsletters for parents. Without any changes in educational programs, teaching techniques or new materials in the classroom, students increased in achievement as measured and evaluated in three areas. Area I, content, was measured by the Cognitive Abilities Test (Riverside Publications), a professionally prepared test designed to assess the development of cognitive abilities related to verbal, non-verbal and quantitative reasoning and problem-solving. Area II, strategy, was measured through observation and evaluation by the classroom teacher using the Teacher Assessment Chart (Coronado Publications), a professionally prepared instrument designed to assess the students level of thinking. Area III, performance, was evaluated by parents' feedback on a questionnaire which assessed students' work habits and level of responsibility at home. It was concluded that parent participation in critical thinking can impact student achievement significantly. Appendices include a teacher survey, a sample parent training program agenda, initial parent questionnaire, sample parent training activity, sample newsletters, test results, a teacher assessment chart and a final questionnaire to parents.

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## CHAPTER I

### Purpose

The education of a child is an ongoing process of sequential learning. Educators create a creative, stimulating environment through which a child is given opportunities to learn by gaining knowledge in a variety of subjects. Through formal and informal settings, children acquire skills which will influence their lives dramatically. One skill that has gained popularity in recent years is critical thinking: the ability to analyze, reason and problem-solve in order to reach a conclusion or accomplish a task. Although critical thinking has made its way into our innovative curriculum programs in elementary, junior and senior high school, educators feel that real-life experiences in the home environment provide excellent opportunities for a child to think critically. For this to happen, parents need to understand what critical thinking is and how it applies to everyday situations at home. This project addressed parent involvement in critical thinking by creating and implementing a series of

parent training workshops and informative newsletters designed to impart knowledge and techniques for home use. This group consisted of the parents of 13 students from a local second grade class. Orientation, discussions, demonstrations and any pertinent information was presented to the parents throughout a period of 10 weeks. Upon conclusion of the project, student achievement was evaluated and is detailed in this document.

#### Background

The school selected for this project is located in Southeast Florida. One second grade classroom consisting of 28 seven and eight year old students, 93 percent which are of Hispanic origin, comprised the experimental and control groups. Most students of this classroom belong to non-professional, middle class families living within the school boundary guidelines. Most of these families are working locally, both parents are employed and share the educational responsibility of their children.

The school consists of 74 faculty members: one principal, one assistant principal, 46 regular classroom teachers, and 26 support personnel. Due to



the ever-increasing student population, this elementary school houses Kindergarten through Grade 5 only.

The classroom teacher has stated that 27 of the students in this classroom function well in English and many of the parents, also, understand and speak English quite well. The students of this classroom are not new to this country but many of them may have entered one or two years ago. Through past visitations and conferences, the teacher has indicated that these families want to learn and understand the American educational system as well as become involved in school functions whenever possible.

As a resource teacher with the Augmenting Thinking Through Language Acquisition Skills Program (A.T.T.L.A.S.), this author has been involved with critical thinking for the last three years in a large public school system. Professional involvement has included teacher training through workshops and demonstration lessons, grant writing for Title VII funds as well as work with affiliated programs involved with critical thinking. This project provided the researcher with an opportunity to work directly with parents who may otherwise not know the concept of

critical thinking and understand its importance in the home.

Teachers observe and experience varying levels of parent participation and involvement. At any level, there exists a strong desire in parents for their children to achieve in school. Critical thinking workshops for parents helped them to see how specific techniques at home influence their children's ability to think and to perform tasks in school.

#### Problem Statement

This project attempted to devise and execute a parent training program in critical thinking strategies as a way to increase student achievement in second grade.

#### Support for the Existence of the Problem

Through a survey of second grade teachers, many performance problems were reported as common occurrences. (Appendix A: 39)

1. Children have difficulty accomplishing a task, assignment, and/or project due to their limited ability to organize and sequence specific steps towards its completion.
2. Children have limited motivation and desire to accomplish a task that may involve more than one operation.

3. Children seem to be more interested in getting the job done rather than doing the task well.
4. Some children may come to school without the experience of any type of responsibility at home, therefore, quite limited in most types of work-related obligations in the classroom.
5. Some children have great difficulty following through on oral and written directions to accomplish a task unless supervised extensively.

#### Specific Behaviors

After having met with the classroom teacher of the second grade target group, other behaviors were noted as additional evidence of a problem:

1. Children in second grade are expected to be able to work independently at various times in the school day but some children still have very short attention spans which hinders consistent work.
2. Children are expected to be responsible for all homework assignments but do not carry through as often as is necessary.
3. Children come to school unable to accept responsibility for their belongings (sweaters, books, pencils, and notebooks).
4. Some children answer questions orally or written without trying to think through their responses and are unable to explain why an answer was given.
5. Twenty-one children in the target group have performed at Stanine 5 or greater in Reading or Math during the last Stanford Achievement Test period but do not exhibit the same satisfactory work habits in the classroom.

### Causes for the Problem

Educators generally feel that children need to learn and develop general problem-solving strategies through (1) observation of effective role model, (2) extensive practice, (3) employment of questioning strategies (4) use of critical thinking skills and (5) sharing in the decision-making process. However, many educators feel that problem-solving or critical thinking strategies are not used outside of the classroom due to lack of understanding, importance, and awareness on the part of the parents. Since critical thinking strategies can be effectively employed in many activities, chores, and responsibilities at home, it becomes apparent that parent awareness training could prove beneficial.

### Outcome Objectives

Over a period of 10 weeks, the students in the target group whose parents received critical thinking training sessions will improve 10 percent (collectively) as measured by the Cognitive Abilities Test to be administered before and after the implementation of the practicum.

At the end of the implemented practicum, the

classroom teacher will judge students achievement by completing a teacher assessment chart. The students of the target group whose parents received training workshops will improve significantly in student achievement by scoring 30 points or higher (collectively) on the rating scale of the chart, indicating frequent application of higher order thinking skills to accomplish a task, assignment or project.

Following 10 weeks of implementation, the parents will respond to a final questionnaire indicating their observations of student performance. Those students whose parents received critical thinking training will show an increased ability to (1) work independently, (2) be responsible for assigned tasks, personal belongings and homework assignments, (3) be able to defend answers chosen in response to questions orally or in writing and (4) show improved work habits by scoring positively on the final questionnaire.

## CHAPTER II

### Research and Solution Strategy

To talk about learning how to think seems unnecessary to some people since the thinking process appears to be a natural phenomenon of learning strategies or learning plans of which problem-solving, task analysis and procedural skills all play a vital role. Educators tend to agree that not only subject matter or content is important to a child's educational program but how to reason, question, think, organize, and accomplish a task in a systematic manner are equally important. As stated by Derry (1989), students who receive good strategy training during their years in school can acquire a form of knowledge especially useful in coping with the wide variety of learning situations they will encounter throughout their lives. Derry contends that effective learning strategies carry over between subject matter and develop general problem-solving methods in all areas of learning. The thinking process/learning strategy approach has received increased attention in our innovative school programs but had been greatly discussed by past

philosophers, educators, and psychologists as well.

Dewey, an American philosopher, is famous for his writing on How We Think (1933). He claimed that the natural curiosity of a child, fertile imagination, and love of inquiry closely parallels the attitude of the scientific mind (Robinson, 1987). Dewey's Laboratory School at the University of Chicago attracted attention for its innovative nature. His idea of learning was based on the life activities of children whereby, exploration, inquiry, and desire for learning were considered inherent within the learner. Dewey's work has assisted future educators to better understand how children learn. A movement in education during the 1970's known as Open Education, provided for learner-initiated activities through exploration and discovery not unlike Dewey's earlier Laboratory School.

Piaget, a Swiss psychologist, gave insight into the thinking process of a child by presenting tasks and questions to children to determine how they develop logical, sequential thought (Doll, 1989). Piaget found and reported that there appear to be four levels of development and from each level there are certain physical and mental operations which children can do.

According to Doll, even though some of Piaget's ideas have now been either supplanted or extended, his original monumental work still commands respect.

In the 1950's, Bloom wrote the Taxonomy of Educational Objectives in which he stated that the thinking process falls into certain categories (memory, translation, interpretation, application, analysis, synthesis, and evaluation) and by asking questions in each of the categories, children can be given practice in learning how to think. Teaching children to think became an important function of the schools, highlighting higher order thinking through creative projects and independent tasks.

Taba, an American educator, developed certain cognitive strategies in the learning process. Taba identified concepts, principles, attitudes, and skills as basic types of learning objectives of any curriculum (Robinson, 1987). Before the works of Taba and Bloom, there did not appear to be any systematic method of teaching critical thinking as found in school programs today. Presently, most schools have critical thinking strategies built into the regular curriculum program as well as special programs that foster higher order



thinking for advanced students, minority students and Limited English Proficient students. Schools have progressed fervently in the area of critical thinking. The next step seems to be addressing those same strategies to people outside the school environment who may have direct impact on the student population.

Parents usually rank first among lay persons concerned with the schools. The importance of parent involvement has been supported by research data supplied by the National Committee for Citizens in Education, the Metropolitan Life Insurance Company and other organizations.

Parent involvement can produce significant improvement in student achievement as was reported through a study in 1975 of the Boulder Valley School District and researched by Goodall (1985) which stated three reasons why parent involvement is necessary:

1. the child's attitude about school and learning will be different when there is cooperation between the parent and school personnel.
2. the parent will have a sense of partnership,
3. a pattern of communication is established so that the parent and school personnel can work to resolve any problems that might arise as the child develops.

Knowing that parent participation and involvement

can be effective to a child's success, many teachers have tried to obtain parent volunteers for classroom use as tutors, listeners or that extra pair of hands needed to maintain a smooth, disciplined environment for consistent learning to take place. Many elementary teachers will also enlist the parents help at home for tutorial aid in homework assignments, supplementary reading and independent projects.

A computer search has illustrated a variety of parent participation studies most of which showed increased student achievement through home parent involvement. Sartain (1981) reported that only about a third of a child's learning can be attributed to formal school teaching and the remaining two-thirds is gained through the family and community. As researched by Goodall (1985), parent training involves guidelines and suggestions in order to be effective. Accordingly Grim, editor of "Training Parents to Teach; Our Model", emphasizes that four aspects must be considered in planning a parent involvement program: (1) getting parents to participate, (2) exchanging information with parents, (3) supporting parents emotionally, and (4) improving parent-child interactions.

As indicated by surveys and polls within the last 10 years, parents have indicated that they do favor more school contact through increased parent-teacher conferences, more school involvement and more information about what they can do in the home to help their children in school.

Educators and parents, alike, strive to provide the best possible education for all children. Teaching children to become effective thinkers is increasingly recognized as an immediate goal of education (Hughes, 1985). Schools serve this goal in a variety of ways: implementing and updating sound curriculum programs, providing periodic teacher training workshops, meeting the needs of specific students through special classes or services as well as involving parents and community people whenever appropriate for the benefit of the students and school.

Within the school environment, children must meet certain requirements in academics effort, and behavior. When those requirements are not met, the teacher will need to remediate or correct the situation accordingly. Having questioned many teachers about the educational expectations related to second grade most feel that the

requirements of that grade can adequately be met by students who are emotionally, psychologically, and socially mature enough to handle independent tasks. In order to increase student achievement in second grade, it conclusively appears to be necessary to teach the children how to be organized, independent thinkers who can accomplish a task without extensive adult interaction or supervision. The solution strategy of this project emphasizes this ultimate goal during parent training.

The parent workshops were conducted on five separate nights with orientation, discussion, activities, and sharing (questions/answers) planned (Appendix B: 41-42). A prepared questionnaire was distributed during orientation night in order to determine the level of parent awareness in regard to critical thinking (Appendix C: 44). A sample activity for parent training (Appendix D: 46-47) illustrates the type of activity presented. Other school personnel were invited to speak with parents on critical thinking and share their expertise in that area. Newsletters (Appendix E: 49-55) communicated and shared critical thinking ideas with parents throughout the duration of

the project. It was hoped that during the implementation of this project, parent enthusiasm would spark other parents to become involved at a future time.

## CHAPTER III

### Method

To increase student achievement will always be a priority goal in any school district across our country. How educators, curriculum planners and administrators deal with this concern may vary from district to district but, nevertheless, each school site administrator recognizes the importance of providing the best possible educational framework for students, teachers and support personnel to accomplish this goal.

A contemporary, popular idea for increasing student achievement in the schools has focused attention towards critical thinking strategies. Teachers, administrators and support personnel have been introduced to this concept through in-service training sessions, workshops and conferences. By making its people aware of critical thinking, its strategies and techniques, a school district provides for the increased probability of attainment of its priority goal.

It has been the attempt of this project to extend critical thinking awareness to the parent segment of the population. Within one school site where the principal was most receptive to the idea of parent training, this researcher devised and executed a training program in critical thinking strategies as a way to increase student achievement in second grade. Following, a chart shows the time line, personnel, tasks and activities that were incorporated into the project's implementation.

## Implementation Chart

Time	Personnel	Task	Activities
Week One	Project Organizer  Principal  Classroom Teacher  Second Grade Teachers	Pre-Planning	<p>Discussions with Principal for approval of project.</p> <p>Discussions with Classroom Teacher for orientation of project idea.</p> <p>Communication with Riverside Publications to order testing material.</p> <p>Interviews with Second Grade Teachers to conduct survey.</p> <p>Correspondence for research data and updates on critical thinking for newsletters:</p> <p>"The Home and School Institute, Inc."            Special Projects Office            1201 16th Street, N.W.            Washington, D. C. 20036            (202-466-3633)</p> <p>NCBE Services            8737 Colesville Road, Suite 900            Silver Springs, Md. 20910</p> <p>Sandra Black            (co-author of <u>Building Thinking Skills</u>)            c/o Dade County Public Schools            1450 NE 2 Ave., Rm. 516            Miami, Florida 33138</p> <p>Dr. Richard Paul            Sonoma State University            Sonoma, California</p>



Time	Personnel	Task	Activities
Week Two	Project Organizer Classroom Teacher	Pre-test	<p>Arrange with Classroom Teacher appropriate testing schedule.</p> <p>Administer pre-tests over three day period allowing one hour per day for tests.</p> <p>Score and chart each student's results.</p>
Week Three	Project Organizer Principal Classroom Teacher	Initial Parent Training Session	<p>Discuss orientation session with Principal.</p> <p>Invite Principal to orientation session.</p> <p>Secure space at school for orientation session.</p> <p>Prepare and distribute invitations to parents for general meeting.</p> <p>Invite and discuss with Classroom Teacher her role in the first session.</p> <p>Prepare agenda.</p> <p>Prepare parent questionnaire.</p> <p>Organize refreshments.</p>
Week Four	Project Organizer Secretary	Preparation of News-Letter	<p>Review research material.</p> <p>Report information on critical thinking by experts in field.</p> <p>Make suggestions to parents for home activities.</p> <p>Discuss newsletter format with Secretary.</p> <p>Distribute newsletter to parents.</p>

Time	Personnel	Task	Activities
Week Five	Project Organizer Principal T.E.A.M. Coordinator A.T.T.L.A.S. Resource Teacher	Parent Training Session	Secure dates and location for subsequent training sessions with Principal. Prepare agenda. Organize refreshments. Invite and discuss with T.E.A.M. Coordinator possible topics for next parent session. Include time for parents feedback. Discuss with A.T.T.L.A.S. Resource Teacher possible assistance with conference calls to parents.
Week Six	Project Organizer Secretary A.T.T.L.A.S. Resource Teacher	Preparation of Newsletter	Continue newsletter preparation as specified in Week Four. Organize and discuss content of conference calls to parents with A.T.T.L.A.S. Resource Teacher. Make conference calls.
Week Seven	Project Organizer T.E.A.M. Coordinator	Parent Training Session	Prepare agenda. Prepare to introduce T.E.A.M. Coordinator to parents. Distribute appropriate handouts to parents. Allow for sharing time; feedback from parents.

Time	Personnel	Task	Activities
Week Eight	Project Organizer Secretary A.T.T.L.A.S. Resource Teacher	Preparation of Newsletters	Research and organize material for preparation of three newsletters. Discuss format of newsletters with Secretary. Distribute one newsletter later in week. Make conference calls.
Week Nine	Project Organizer Classroom Teacher	Parent Training Session	Invite and discuss with Classroom Teacher her role in training session. Prepare agenda. Organize refreshments. Encourage parents' feedback. Distribute newsletter
Week Ten	Project Organizer Principal Classroom Teacher Parents Secretary	Post-test Final Parent Training Session Final Newsletter Teacher Assessment Chart Evaluation	Prepare post-test schedule similar to pre-test in week two. Share test results with Classroom Teacher. Prepare charts of comparative results (pre and post test scores). Distribute newsletter to Parents. Discuss Teacher Assessment Chart with Classroom Teacher. Collect Assessment data when completed. Prepare a final questionnaire for parents to complete at the final training session. Prepare final training session. Write final report. Share report with Principal.

Time

As indicated by the chart, 10 weeks of implementation constituted the entire project. The greatest amount of time and energy was devoted to Weeks One through Four and Week 10 in which preparation and evaluation activities occurred.

Personnel

The project organizer, otherwise referred to as the researcher, tried to involve an extended group of local personnel to give aid and additional expertise to the project. On-site as well as district personnel offered their time and assistance wherever necessary. Further assistance was given through correspondence by people whose national acclaim in their respective educational fields provided the researcher with facts and updates in the area of critical thinking.

Tasks and Corresponding Activities

Over the duration of the project, numerous tasks and corresponding activities were divided into four distinct stages of implementation:

Stage One:	Pre-Planning
	Pre-Testing
Preparation	Orientation to Parents
	Correspondence for Research

## Stage Two:

Delivery	Parent Training Sessions Newsletters to Parents
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## Stage Three:

Monitoring	Conference Calls to Parents Parents Feedback
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## Stage Four:

Evaluation	Post-Testing Final Questionnaire to Parents Teacher Assessment Chart Report of Results
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Because each stage required specific tasks and activities to be performed sequentially, the researcher kept the organization and execution of the project flowing smoothly throughout.

The first four weeks required much time and energy to be devoted to the initial preparation of the project. With careful planning at this stage, all subsequent stages followed quite effortlessly.

The actual delivery of the project involved Weeks Three through Ten. During these specific weeks, parents were involved either by newsletter or training sessions. To keep abreast of their progress and concerns, Stage Three, Monitoring, was incorporated into Weeks Five through Ten.

A plan to monitor was put in place during Week Five. At that time, the second parent training session was conducted and a specific time was devoted to parents' feedback. It was hoped that parents could air their ideas, concerns or problems about how their children were responding to their attempts with critical thinking at home. One young mother of seven children shared her excellent ideas; ideas which probably resulted from her attempts to survive with seven young children and still remain sane! Also included in the plan to monitor were conference calls.

Conference calls aided the researcher by communicating ideas to parents, addressing their individual concerns privately, energizing the goal of the project and updating any additional information to the parents. In any project of this nature, a monitoring plan would seem essential to ensure that the appropriate actions are, in fact, occurring towards the project's successful end.

During Week 10, the last stage of implementation, evaluation activities were employed. Three areas were reviewed for a final evaluation of the project.

Evaluation Plan

Since increased student achievement was this project's primary goal, the researcher choose to examine the areas that could provide information on how increased student achievement was met.

Increased Student Achievement

Area I	Area II	Area III	
Content	Strategy	Performance	
learned    unlearned		level of doing	not doing
	level of thinking		no thinking
Measured by Tesc Scores	Measured by Teachers' Assessment		Measured by Parents' Feedback

As indicated above, Area I pertained to the content material that a student learned or failed to learn. Content material was measured by the Cognitive Abilities Test (CogAt), a professionally prepared testing instrument by Riverside Publications.

As most educators would agree, it is as important for a student to learn how to think as it is what to

think. So, in Area II, the Classroom Teacher measured the level of thinking for each student through careful observation and professional judgment using the Teacher Assessment Chart provided by Coronado Publications.

In Area III, parents responded to a questionnaire which pertained to student performance as observed at home. The results of all three areas are addressed in detail in the following chapter.



## CHAPTER IV

### Results

Once a project has been completed, whereby all the proposed strategies for solution to the problem have been implemented, it becomes apparent that the results need to be addressed and conclusions made. As indicated in Chapter III, three areas of evaluation (content, strategy and performance) have provided information relative to student achievement. Each area will be detailed in this chapter.

#### Area I: Content

The Cognitive Abilities Test (CogAt), a test designed to assess a student's ability to compare similarities and differences, classify, categorize or order familiar objects, and use quantitative and spatial relationships and concepts, was chosen as a means to compare cognitive growth. Twenty-seven students were given the CogAt test at the on-set of the project as well as at the conclusion. Charts and test results follow (Appendix F: 57-60).

The students whose parents participated in

critical thinking showed an increase in all three areas of the test: verbal battery increased 6 percent, non-verbal battery increased 5 percent, quantitative battery increased 9 percent. The students whose parents did not participate in critical thinking showed growth in two areas only: verbal battery increased 5 percent and non-verbal battery increased 4 percent. Since the teaching techniques and educational materials remained constant for all the children, it is concluded that the increase in cognitive skills as measured by CogAt was a direct result of the critical thinking techniques practiced by the participating parents.

#### Area II: Strategy

Equally as important as test scores to a teacher, is the observation of sound, practical thinking that a student shows when arriving at an answer, completing a task or dealing with a new situation. The classroom teacher was asked to observe her students at the conclusion of the project and rate their level of thinking on an assessment chart. The assessment chart and graphs relative to the teacher's responses follows (Appendix G: 62-64). It should be noted that the classroom teacher was not asked to respond to this

this assessment chart initially at the on-set of the project. It was felt that her responses at that time might consciously or unconsciously effect her personal teaching style.

In the graph of students whose parents participated in critical thinking, there are a greater number of students who were rated 30 points or higher indicating frequent application of critical thinking. Again, it is concluded that the additional practice at home of critical thinking by the participating parents positively impacted the students' ability to engage in higher order thinking more frequently.

### Area III: Performance

When these parents were invited to the orientation night of this project, only one indicated that she was knowledgeable with the term critical thinking. The others were unfamiliar with the term, its application presently in the school and its use in the home. The majority of the parents felt that their children were involved with household chores and did homework regularly but needed constant reminders, adult supervision and sometimes punishment in order to get results. During the events and discussion that night,

## CHAPTER V

### Recommendations

Within many school districts, it is the design and the intention of the administrative board to secure parental support by involving parents in decision making, communicating school projects and educational events to community members as well as contributing to programs that directly effect the educational process of their children. According to Costa (1985), time and energy invested in parental education pay high dividends. Parenting classes in the curriculum such as (1) promoting language development, (2) good nutrition, (3) supervising homework and (4) rational approaches to good discipline enhance parent effectiveness. Since parents probably have the greatest effect on their children's abilities, it is of utmost importance to maximize their impact with a sound educational framework from which to role model. Such was the intent of this project.

Critical thinking workshops made parents aware of what critical thinking is, how to role model one's own thinking critically and how to foster this same process

in children. Most parents showed interest, desire and concern for their children. However, one recommendation for any person or group planning to coordinate a similar endeavor is to appoint one parent liaison to assist during the monitoring stage.

During the monitoring stage, parent feedback and conference calls could be greatly enhanced by a parent liaison. This person who is already part of the group has a rapport established as a concerned cooperative friend. Parents feel much more comfortable discussing certain situations with members of their own group as opposed to an outsider, especially if the project organizer is not a faculty member of that school. The parent liaison could easily bridge the communication gap between parents and project organizer which could foster greater interest as well as success for the project's goals.

Another factor worthy of attention is that of time. As was evidenced during this project, parent attendance seemed to decrease after the third training session. Due to prior commitments or a hectic schedule, some parents found it difficult to attend each training session. One parent training session

monthly might accommodate more people without causing anyone undue stress. If the project continued over a period of five or six months, at least five parent training sessions could be scheduled with the parent liaison monitoring progress periodically throughout each month.

Since newsletters present facts, ideas and suggestions easily, one may consider two publications monthly. If at all possible, the newsletters should be translated if English is not the spoken language at home to insure proper understanding of the content.

Since parent involvement in education provides many unique opportunities for people to learn, grow and foster progress in their children, it is the recommendation of this researcher for any person or group who might be interested in establishing a similar program to read and consider the goals, objectives and methods of this project for the valuable pursuit of a common goal--providing the best possible education to all children.

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**Appendix**

**Appendix A**  
**Survey of Second Grade Teachers**

## Appendix A

## Survey of Second Grade Teachers

Using your professional judgment, please respond to the following questions:

1. Do second grade children have difficulty accomplishing a task, assignment, and /or project?  
 Yes       No  
If yes, why? \_\_\_\_\_
2. Do second grade children accomplish a task that may involve more than one operation?  
 Yes       No  
If no, why? \_\_\_\_\_
3. Are second grade children interested in getting the job done or doing the task well?  
\_\_\_\_\_
4. Are second grade children capable of accepting the responsibility of work-related obligations in the classroom?  
 Yes       No  
If no, why? \_\_\_\_\_
5. Do second grade children respond to oral/written directions to accomplish a task?  
 Yes       No  
If no, why? \_\_\_\_\_

**Appendix B**  
**Sample Parent Training Program Agenda**

## Appendix B:

## Sample Parent Training Program Agenda

## Orientation

## INTRODUCTION OF PROJECT COORDINATOR

Mrs. Joyce Galgano, Resource Teacher

A.T.T.L.A.S. Program North and North Central Areas

A Public School System

## INTRODUCTION TO CRITICAL THINKING CONCEPT

Definition: the ability to analyze, reason and problem solve in order to reach a conclusion or accomplish a task in an orderly, systematic manner.

## COMMITMENT TO STRATEGIC GOALS

Total school district plan 1988-1993 Strategy #78: implement a pilot program which will enhance students' critical thinking in all classrooms; develop a plan to further involve parents in the development of their children's critical thinking.

Individual elementary school: presently three teachers work with the A.T.T.L.A.S. self-contained classes using critical thinking strategies for vocabulary enhancement.

Specific second grade class: each student will be given the pre/post Cognitive Abilities Test while half of the parents will receive training in critical thinking during a ten week segment, results of the tests will be evaluated to determine whether parent involvement increased student performance on the test. Classroom teacher will complete a teacher assessment chart upon completion of project indicating any increase of student achievement in the classroom reflected by student's ability to complete tasks and assignments independently and satisfactorily by applying higher order thinking skills.

## Appendix B (continued)

## INITIAL QUESTIONNAIRE TO PARENTS

PARENT ACTIVITY #1: Household Chores Bedroom Cleaning  
Child needs to see large task as series of smaller tasks : making the bed, putting toys in chest, placing shoes in closet, piling books, and papers on the desk: each task should have purpose for the child - the completion of each smaller task helps to complete the large task: evaluation by an adult of the larger task should be expected by the child.

## CRITICAL THINKING QUESTIONS BY PARENT TO CHILD

In what ways can you clean this room?

Why is (name specific task) important?

How will this room look when you finish?

How long will it take to complete?

Let's check it together when you are ready.

## QUESTIONS AND ANSWERS

## SCHEDULING OF FUTURE TRAINING SESSIONS

## REFRESHMENTS

Appendix C  
Questionnaire Number 1 (Initial)

## Appendix C:

## Questionnaire Number I (Initial)

1. Have you heard the term critical thinking?  
 Yes       No
2. Do you know how the school system use critical thinking?  
 Yes       No
3. Do you have your child help with household chores?  
 Yes       No
4. Is the child able to accomplish the chore to your satisfaction?  
 Yes       No
5. Do you need to supervise the child doing a chore?  
 Yes       No
6. Is your child responsible for homework assignments?  
 Yes       No
7. Does your child need to be supervised doing homework?  
 Yes       No



Appendix D  
Sample Activity for Parent Training

## Appendix D:

## Sample Activity for Parent Training

Parents involve children in home chores for a variety of reasons: (1) teach the child to be responsible for a specific task, (2) give additional aid to other family members, and (3) make the child feel like a contributing member of the household. The procedure employed by the parents for task completion is of utmost importance in this project. Parents will learn how tasks at home correlate with school performance as well. During a training session, a parent will learn that:

1. a child must be able to see a task as a series of smaller tasks,
2. completion of each smaller task contributes to the accomplishment of the entire task,
3. each task deserves time and attention in order to be done satisfactorily,
4. the final task will be evaluated by an adult.

Parent Training Session I will involve the household task of:

## Cleaning the Bedroom:

1. Series of smaller tasks:  
Putting toys in toy box, hanging clothes, arranging shoes in closet, placing books on bookshelf, making the bed.
2. Completion of each smaller task contributes to the accomplishment of the entire task:  
Each task helps organize the bedroom while the task gets done in a sequential manner.
3. Each task deserves time and attention:  
Doing each smaller task helps organize those items for future use, helps to prolong the

## Appendix D: (continued)

life of each item and provides a sense of accomplishment.

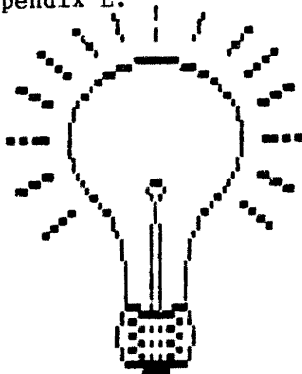
## 4. Final task will be evaluated:

Child learns that an adult will evaluate and accept or reject final results.

## Correlation with School Performance:

Many times teachers assign projects that may involve more than one step or operation. A book report may involve (1) selection of a book, (2) reading the book, (3) writing about the book, (4) illustrating a favorite scene or character, and (5) reporting about the book's content. Some children, lacking a sequential, organized approach find this type of activity overwhelming. A child can learn that the same sequential approach of doing household chores can be applied to schoolwork. Parents will bridge the gap in this area of learning.

Appendix E  
Critical Thinking Newsletter



THANK YOU for attending the critical thinking meeting March 22.  
SEE YOU ON APRIL 4... NEWSLETTER # 1 7:15 p.m. Cafeteria

**LEARNING** is a form of problem-solving that involves analyzing a learning task and devising a strategy appropriate for that particular situation (Derry, 1989).

**STRATEGIES** For many years, educators assumed that students developed effective learning and study skills as they grew older and had more experience with school (Brown et al. 1983). But many students do not develop effective learning strategies unless they receive explicit instruction in their use (Weinstein et al. 1989).

**PARENTS** impact their childrens learning significantly. Parents can give critical thinking experiences to their children at home quite easily by questioning rather than ordering...



"What things can you do to clean this room?"

NOT

"Go clean up that messy room!"

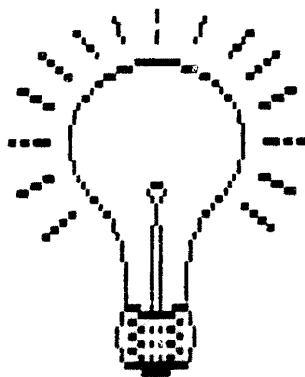


"How are you going to do that book report?"

NOT

"Sit down and do that homework!"





# CRITICAL THINKING

THANK YOU for attending the critical thinking meeting April 4.

SEE YOU ON MAY 23...

NEWSLETTER # 2

7:15 p.m. Library

"Helping students become effective thinkers is increasingly recognized as a primary goal of education. (Costa, 1985)

To be an effective thinker, a student must become an active learner. Teachers and parents help students become better thinkers and learners by:

- allowing children share what they have learned daily,
- asking how a project or task could be made better next time,
- creating a positive atmosphere at school and home for motivation and desire to question openly,
- modelling (coaching) behavior that children should copy.

REMEMBER: The tools of critical thinking are PRACTICE, CONCENTRATION and COACHING.

Using life experiences to aid children in critical thinking can be done quite easily by providing real world situations:

1. Ask your child to compare breakfast cereals ( a critical thinking skill in comparing contrasting
2. Let your child follow or give street directions to you ( a critical thinking skill in sequencing
3. Encourage your child to organize and sort the library ( a critical thinking skill in classification
4. Ask your child to explain how the role of a teacher is like that of a parent ( critical thinking skill in analyzing

By allowing the child to THINK OUT LOUD, we take away the guessing.

SEE YOU SOON. ANY QUESTIONS OR CONCERNS, CALL MOVIE BOOKS, 774-1001.



THANK YOU for attending the critical thinking meeting May 23.

NEWSLETTER # 3

"Tell a child WHAT to think, and you make him a slave to your knowledge. Teach a child HOW to think, and you make all knowledge his slave."  
(Henry Taft, 1985)

Most educators would agree that learning what to think is important, but learning how to think is essential! If teachers, administrators and parents did nothing more than make a child see that how we go about getting to an answer is as important as getting the answer correct, we would have contributed greatly to this child's future.

Let's look at eight areas of thinking and learning (Coronado Publishers, Inc.)

- OBSERVING means finding out all you can about something by looking, listening, and using your other senses. You tell only what you are sure about.
- COMPARING means looking at two things to see how they are alike and how they are different. You tell as many likenesses and differences as you can.
- CLASSIFYING means putting things that belong together into groups. You give each group a name that tells how the things in it are alike.
- IMAGINING means using your mind to create things that have never existed before. You can create things like new pictures, new stories and new ideas.
- IDENTIFYING ASSUMPTIONS means finding out what you take for granted. Assumptions may turn out to be true. They may turn out to be false.
- MAKING HYPOTHESES means listing possible answers for something that puzzles you. You use the facts you have and make smart guesses.

2.

-SOLVING PROBLEMS means using what you already know in a new situation. You consider possible new ways to pull facts and ideas together.

MAKING DECISIONS means choosing what is the best thing to do. You consider what is most important to you and then make up your mind.

Ask your child to tell you what object you are describing. Tell your child everything you can about one particular object. When you are finished, ask your child to tell what it is and why he thinks it is that particular object. Let the child describe a different object and you try to guess what it is and tell why you think it is that particular object.

Ask your child to compare two objects. Let him name at least 5 ways the objects can be similar and 5 ways that they are different.

Name 5 items and ask your child in what group can they be put. If only 4 of those items can go in one group, ask your child to tell why the fifth items does not belong to that group.

Create a new story together. Begin the story and then let your child continue it. After awhile, you continue the story and let your child choose an ending. Discuss the new story.

Share one assumption that you think is true with your child. Once he understands, let him tell you one assumption and why he believes it to be true.

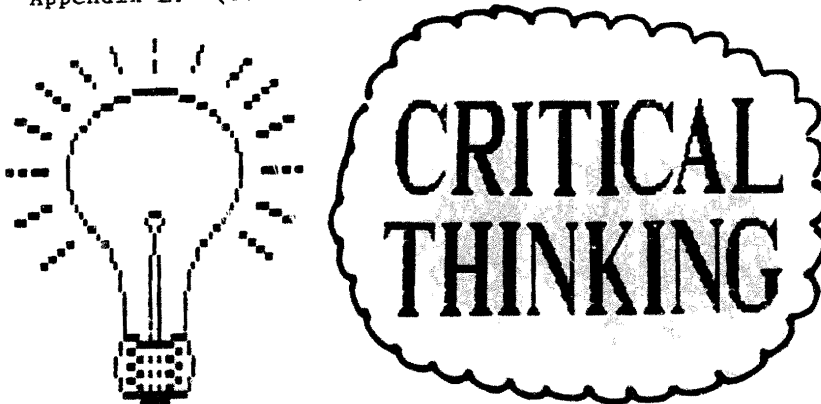
Ask your child why the sky is blue. Let him list or tell all possible answers which will support the question. Help him to look up the correct answers and discuss them with him.

Tell your child one possible problem that the family might be facing at that moment. Ask him to think of several ways to solve the problem and why those ways are appropriate to him.

Ask your child to plan the family's weekend plans on a budget (you set the amount). Tell him to decide what things can be done, how much will it cost and will everyone be happy with his decisions. 'Why' or 'Why not'?

REMEMBER... It is important that your child sees you role model good thinking for him. Hope the above activities help share in the thinking and learning game!





## NEWSLETTER # 4

In the last two decades, educational researchers have been studying effective teaching. Their findings indicate that in the classroom, 40 to 75 per cent of teacher talk is in the form of questions. If those questions follow certain guidelines, the teacher can be very effective. Let's look at the questioning strategy guidelines:

**QUESTIONS CALLING FOR VARIETY** These are questions that ask students to come up with completely different responses from those already given. Some examples are:

- What else could be done in this situation?
- What else might happen?
- What are some ways this could be made better?

**QUESTIONS CALLING FOR CLARIFICATION** These are questions that ask students to explain the meaning of statement of words, provide specific examples, or elaborate on an idea to extend its meaning. Some examples are:

- What do you mean by that?
- Please give me some examples of that.
- How is your answer different from that one?

**QUESTIONS CALLING FOR REASONS AND SUPPORT IDEAS** These questions are used at all steps of discussion when students are asked to explain, cite reasons, make conclusions and generalizations. Some examples are:

- How did you arrive at that answer?
- In what ways are these things alike?
- What leads you to believe that?

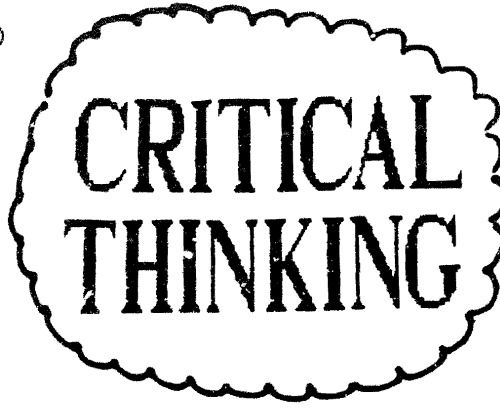
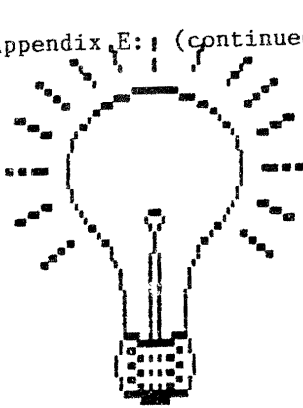
**FOCUSING QUESTIONS** These are the initial questions that focus students on task at a particular step. Proper wording is important. Here are some examples:

Which items would you put together in groups?  
Which items go together because they are alike? Why?  
In what ways are these items alike? different?

Good questioning techniques will stimulate the imagination and sense of curiosity in children. It will also foster improvements in vocabulary and reasoning.

Now that it is apparent that good questioning techniques are used by effective teachers in the classroom, try to allow for a similar type of practice in the home.

PARENTS should try to get their children to think aloud by asking for explanations to answers given, reasoning behind those answers and further support ideas for any other possible answers. With practice, teachers, parents and children can learn to ask and answer more effectively!



NEWSLETTER # 3

Educators and parents strive for the best possible education to be made available to all children. As important as what children learn is how children learn. This statement and concept has been repeated several times over the weeks. Children need lots and lots of practice in learning how to think. If parents observe their children carefully, the following questions could give insight as to the type of thinker your child is.

To what extent does the student give his or her full attention to the task of thinking?

To what extent does the child show that he or she values the process of thinking?

To what extent does the student include a variety of alternatives in his or her responses?

How important is "thinking time" to the child?

Are his or her answers creative or original?

To what extent is the child able to show understanding of the process of the operation behind each activity?

To what extent does the student show ability to complete assigned tasks?

To what extent does the child show high level thinking?

Over the weeks, newsletters have brought you facts, ideas and suggestions related to the area of critical thinking. It was my intention and desire to help you understand critical thinking and try to use some of the techniques at home. I hope this has been interesting and beneficial to you. My best to you.

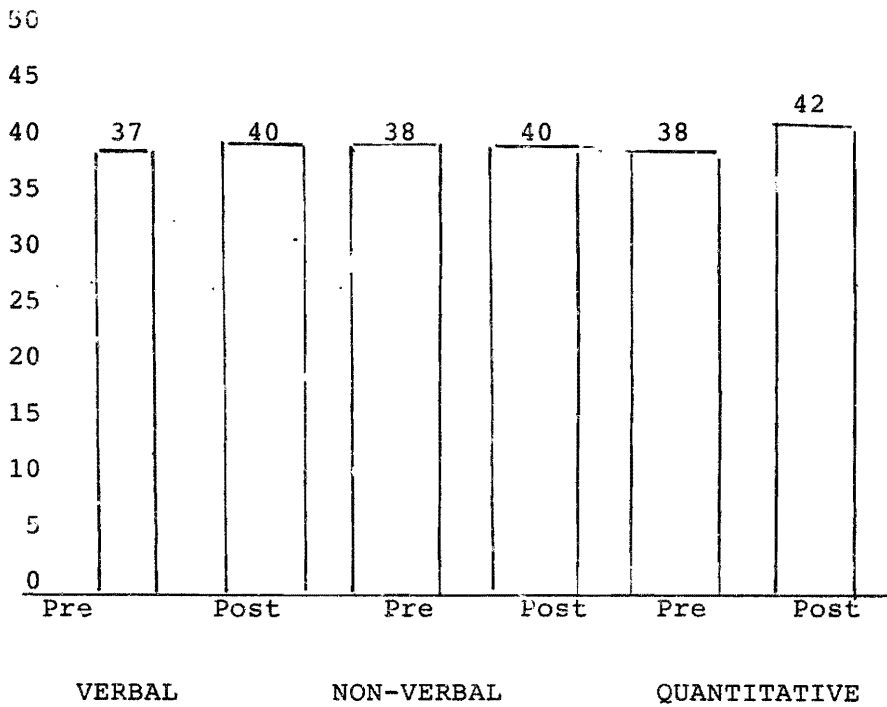
Appendix F

Chart of Cog Ac Pre/Post Test Results

Chart of CogAt Pre/Post Test Results  
 Scores of the 13 Students Whose Parents  
 Participated in Critical Thinking

Verbal (47)				Non-Verbal (46)				Quantitative (47)			
Pre-test Score	%	Post-test Score	%	Pre-test Score	%	Post-test Score	%	Pre-test Score	%	Post-test Score	%
37	79	40	85	44	95	45	97	41	87	44	93
38	80	35	74	35	76	36	78	34	72	34	72
46	97	43	91	46	100	45	97	43	91	46	97
32	68	37	79	38	82	39	84	40	85	42	89
40	85	42	89	35	76	41	89	37	78	42	89
Inc	--	40	85	Inc	--	40	86	Inc	--	43	91
33	70	37	78	44	95	45	97	34	72	41	87
42	89	46	97	32	69	38	82	29	61	36	76
42	91	44	93	42	91	44	95	44	93	46	97
38	80	41	87	39	82	39	84	41	87	46	97
30	63	39	82	32	69	33	71	32	68	37	78
33	70	36	76	31	67	38	82	33	70	37	78
35	74	39	82	40	86	41	89	42	89	43	95
Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
37	79%	40	85%	38	82%	40	87%	38	79%	42	88%
INCREASED 6%				INCREASED 5%				INCREASED 9%			

## Appendix F: (continued)

Scores of the 13 Students Whose Parents  
Participated in Critical ThinkingNumber of  
correct  
answers



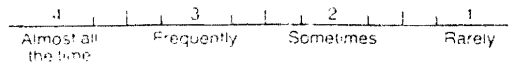
Appendix G  
Teacher Assessment Chart



# Thinking and Learning Teacher Assessment Chart

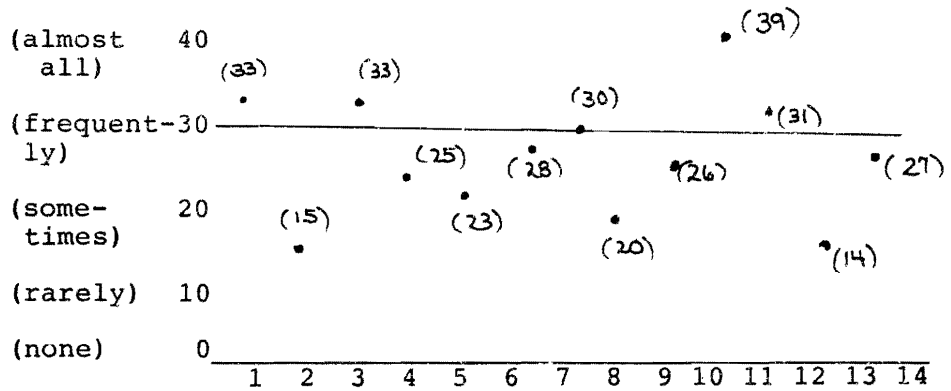
## Rating Scale

The pupil exhibits this behavior



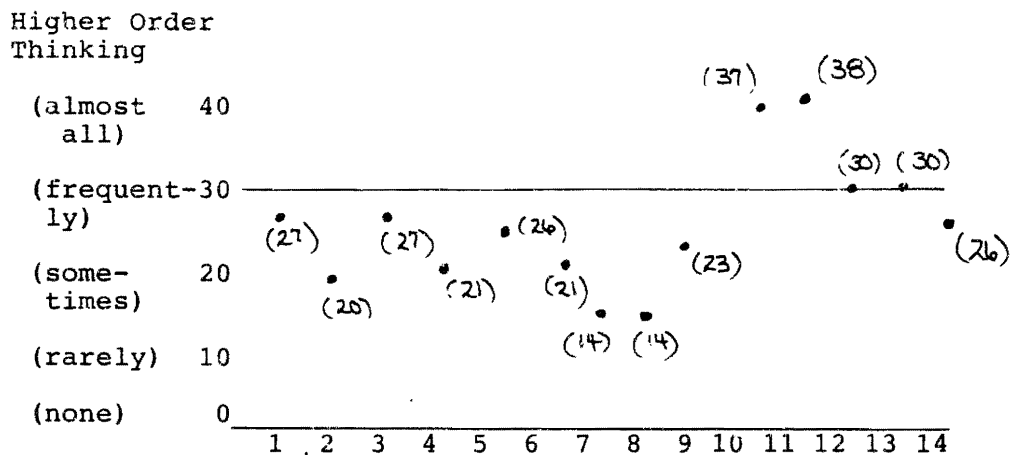
PERFORMANCE AREA		Marking Period	
		1	2
1.	To what extent does the student give his or her full attention to the task of thinking?  (A low number would indicate that the student gives only token attention to the tasks.)		
2.	To what extent does the pupil show that he or she values the process of thinking?  (A low number would indicate that the pupil pays more attention to the product — i.e. getting the "right answer.")		
3.	To what extent does the pupil include a variety of alternatives in his or her responses?  (A low number would indicate that the pupil sees only one or two responses as possibilities.)		
4.	To what extent does the pupil indicate that the process of engaging in thinking is important, by giving the task sufficient "thinking time"?  (A low number would indicate that the pupil pays more attention to the product — i.e. getting the work finished.)		
5.	To what extent is the student able to take cognitive risks and give responses that show originality and creativity?  (A low number would indicate that the student is more traditional in his or her approach and that the responses are more standard.)		
6.	To what extent does the pupil show an understanding of the process of the operation behind each activity?  (A low number would indicate that the student responds in a formula-like way.)		
7.	To what extent has the pupil been able to complete the tasks on his or her own?  (A low number would indicate that the pupil required help with one or more steps of the task.)		
8.	To what extent does the pupil show his or her ability to deal with situations where there are many acceptable answers?  (A low number would indicate that the pupil needs reassurance that the work is "right" and "good.")		
9.	To what extent is the pupil able to carry the tasks to completion?  (A low number would indicate that he or she leaves the tasks unfinished.)		
10.	To what extent does the student show a high level of engagement of thought on the activities?  (A low number would indicate that he or she avoids the activities because the thinking is too hard.)		

## Appendix G: (continued)

Higher Order  
Thinking

Number of students whose parents participated in critical thinking.

## Appendix G: (continued)



Number of students whose parents did not participate in critical thinking.

Appendix H  
Final Questionnaire to Parents

## Appendix H:

## Final Questionnaire To Parents

Work Habits:

Does your child accomplish a given task with little or no supervision?

Yes      No

Is a task completed within a reasonable amount of time?

Yes      No

Does the completed task meet with your satisfaction?

Yes      No

Responsibility:

Do you feel your child shows a sense of responsibility with:

- a. homework?    Yes      No
- b. personal belongings?    Yes      No
- c. assigned household chores?    Yes      No

Critical Thinking:

Does your child think first before choosing an answer?

Yes      No

Does your child explain why an answer was given?

Yes      No

Do you understand critical thinking?

Yes      No

## Appendix H: (continued)

