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ABSTRACT

Three workshops are described which are designed to allow the elementary teacher to gain competencies in the use of hand tools and the design and implementation of class programs oriented around workshop activities. Methods for recruitment and selection of participants are presented according to priorities (first being special education teachers; last being administrators and general elementary school teachers). Evaluation methods are described, and evaluation questionnaires are included. Analyses of process evaluations (how well a strategy is working while it is in process) and product evaluations (how well project goals were accomplished) are presented. Product evaluations indicate that the major design objective of the workshops, as stated above, was accomplished.

(JB)

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**Training Elementary Education And  
Special Education Teachers In The Use  
Of Tools And Materials With Children**

SP 007 503



**EPDA FINAL REPORT**

**Mr. Conrad Johnson - Director**

**Robert D. Weber - Associate Director**



## ACKNOWLEDGEMENTS

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- . . . For helping us overcome the forces of compression, tension, and shear: Professor Vincent Dresser
- . . . Magicians with cardboard: Mr. Joseph Scandariato  
Miss Lois Burns
- . . . For preserving and communicating history: Mr. Paul Jorgensen
- . . . Our Galloping Gourmet who provided us with physical and mental nourishment: Ms. Virginia Simonson
- . . . For helping us learn with and about leather: Mr. Robert Buck  
Mr. George Hurst
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Mr. Stephen Poliacik
- . . . A pleasant, dependable and most efficient secretary:  
Miss Jeannine Phillips

Apologies are in order for those persons whose names have been inadvertently omitted from the above compilation. Finally, any errors or omissions in this project or this final report can only be attributed to the undersigned.

Conrad Johnson

Robert D. Weber

## Table of Contents

Acknowledgements . . . . .	1
Introduction . . . . .	1
Project Objectives . . . . .	1
Formal Program . . . . .	2
Daily Plan For Workshop Activities . . . . .	3
Workshop Staff and Consultants . . . . .	5
Recruitment and Selection of Participants . . . . .	6
Evaluation . . . . .	8
Description of Evaluation Model . . . . .	8
Context Evaluation . . . . .	9
Input Evaluation . . . . .	9
Analysis of Input Evaluation . . . . .	14
Process Evaluation . . . . .	15
Interim Evaluation - Workshop A . . . . .	16
Interim Evaluation - Workshop B . . . . .	20
Interim Evaluation - Workshop C . . . . .	25
Total Tabulation of Interim Evaluations . . . . .	29
Analysis of Process Evaluation . . . . .	31
Product Evaluation . . . . .	31
Final Evaluation - Workshop A . . . . .	33
Final Evaluation - Workshop B . . . . .	42
Final Evaluation - Workshop C . . . . .	53
Total Tabulation of Final Evaluations . . . . .	61
Analysis of Product Evaluations . . . . .	65
Conclusions . . . . .	67
References . . . . .	68
Appendices . . . . .	69
A. Participant Data . . . . .	69
B. Workshop Brochure, Recruitment Information, Input Evaluation Questionnaire . . . . .	77

## Introduction

The needs and interests of experienced elementary school teachers prompted the offering of the three workshops described and evaluated in this report. The workshops were held at Trenton State College during the 1972 summer session. In essence, the major goal of the workshops was to further prepare elementary school teachers to manage activities involving the use of tools and materials with children. Specifically five objectives were proposed and appear below:

## Objectives

As a result of participating in this workshop, each teacher should:

1. be able to safely and with a measure of skill, use common hand tools, machinery, and materials appropriate for use with elementary school children.
2. develop a minimum of 3 curriculum experiences related to the elementary school curriculum which involve various tools, materials, machines and industrial processes. "Develop" in this case, means making the plans, procedures and hardware necessary to actually implement the activities in the forthcoming school term with elementary children.
3. participate in a field trip to a site, (museum, factory, craft fair, restored historical site) which illustrates how man has used tools, materials and his ingenuity to meet such basic needs as food, clothing, shelter, transportation and communication. This field trip will be directly related to the workshop activities and will provide teachers with both information and inspiration useful for future teaching.
4. maintain a class notebook of activities involving tools and materials which can be used in the elementary classroom to promote learning in the content areas e.g. math, social studies, music, language, arts, etc.
5. become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children.

In addition to these objectives, all participants had the opportunity to obtain one tuition-free graduate credit under course #519.97 Industrial

Education Workshop. Fifty-nine of the sixty-three participants, or 94% registered for and obtained the graduate credit offered.

### Formal Program

Three separate one week workshops were offered during the weeks of July 24th, July 31st and August 7th, 1972. Each workshop consisted of 30 hours of instruction over a 5 day period. Workshop participants met daily from 9:00 A.M. to 4:00 P.M. with one hour reserved for lunch. In addition to the formal meeting times, provisions were made to open the laboratory each Thursday evening for optional activities. All three evening sessions, which were 2-1/2 hours in length, were well attended by workshop participants.

Activities for each week consisted of lectures, demonstrations, laboratory work and a field trip. A more detailed description of the workshop activities and the staff involved can be found on the following pages.

## Daily Plan for Workshop Activities

### Monday

1. Welcome, introductions and workshop overview - Dr. Weber
2. Registration for graduate credit - Dr. Krablin
3. Shop tour and activities involving the use of common tools, holding devices and materials for preparation of weaving devices - Mr. Johnson.

Lunch: 12:00 to 1:00 P.M.

4. Continue lab activity
5. Briefing for trip to Volendam Windmill Museum - Mr. Johnson
6. Cutting, shaping and crafting wooden shoes - Mr. Johnson

### Tuesday

1. Strength of materials used in construction - lecture, demonstrations, and lab activities - Mr. Dresser

Lunch: 12:00 to 12:45 P.M.

2. Visit to Volendam Windmill Museum, Holland Township, Milford, N. J. - Mr. Johnson and Mr. Jorgensen

### Wednesday

1. Comments on visit to Dutch Windmill
2. Additional lab activities involving tools and materials . . . projects in a nutshell and magic squares - Mr. Johnson

Lunch: 12:00 to 1:00 P.M.

3. Cardboard Carpentry - tools, procedures and projects - Mr. Scandariato, Miss Burns
4. Interim Evaluation - Dr. Weber

## Daily Plan For Workshop Activities

### Thursday

1. Food processing - lecture, demonstrations and lab activities - Miss Simonson and Dr. Weber

Lunch: 12:00 to 1:00 P.M.

2. Working with leather - demonstrations and lab activities - Mr. Buck and Mr. Hurst
3. Free lab time to complete unfinished activities

Evening Session - 6:30 to 9:30 P.M. (Optional)

4. Free lab session to pursue activities of individual interest - Mr. Johnson

### Friday

1. Ropemaking - demonstrations and lab activities related to making rope, testing rope and making rope projects. Learning math, science, and english related to ropemaking - Mr. Johnson

Lunch: 12:00 to 1:00 P.M.

2. Colonial methods of splitting wood shingles - Mr. Johnson
3. Ideas for safely arranging the elementary classroom to accomodate tools and materials - Dr. Weber
4. Evaluation of workshop by participants - Dr. Weber

WORKSHOP STAFF AND CONSULTANTS

Mr. Conrad Johnson Professor Division of Industrial Education and Technology Trenton State College Trenton, New Jersey	Director
Dr. Robert D. Weber Assistant Professor Division of Industrial Education and Technology Trenton State College Trenton, New Jersey	Associate Director
Mr. Vincent Dresser Associate Professor Division of Industrial Education and Technology Trenton State College Trenton, New Jersey	Consultant - Strength of Materials Used in Construction
Mr. Paul Jorgensen The Volendam Windmill Museum Holland Township Milford, New Jersey	Consultant - Windmill Construction and Operation
Mr. Joseph M. Scandariato Miss Lois Burns The Learning Tree c/o Trent Box Man. Co. Yardville - Hamilton Square Road Hamilton Square, New Jersey 08690	Consultants - Cardboard Carpentry
Ms. Virginia Simonson Demonstration Teacher Grant School Trenton, New Jersey	Consultant - Food Processing
Mr. Robert Buck Tandy Leather Company Philadelphia, Pennsylvania	Consultant - Working with Leather

### Recruitment and Selection of Participants

There was some concern over obtaining enough participants to fill the three workshops, primarily because recruitment did not begin until the end of May, 1972. It was thought that many teachers would have already made plans for the summer months and thus would be unable to attend the workshops. Apparently this concern was needless since over 130 persons applied for the 60 vacancies.

Because of the nature of each workshop, it was decided to limit the enrollment to approximately 20 participants per workshop. Actually a total of 63 teachers participated in the three workshops and this averaged out to 21 participants per workshop.

Participants were selected by the project staff, using the following priority scale:

- First Priority: Special education teachers who have had some formal training with tools and materials. Special education teachers are defined as those teachers working with children who are physically handicapped, mentally retarded, emotionally disturbed or children who have perceptual or psychomotor problems.
- Second Priority: Elementary education teachers who have had some formal training with tools and materials.
- Third Priority: Special education teachers who lack formal training but nevertheless have conducted tool/material activities with their children.
- Fourth Priority: Elementary education teachers who lack formal training but nevertheless have conducted tool/material activities with their children.
- Fifth Priority: Educational personnel including both administrators

and teachers who are interested in learning about and implementing an active learning program in their school system.

A list of the 63 participants, which includes their school, subjects taught, and grade level can be found in Appendix A. Tabulations indicate that the 63 participants were composed of 18 special education teachers, 41 elementary school teachers, 2 elementary school administrators, 1 elementary school reading specialist and 1 college professor of elementary school education. Participants who were selected, received the following items:

- a. Letter of acceptance \*
- b. Workshop objectives
- c. General Information Sheet \*
- d. Workshop brochure \*
- e. Housing information
- f. Travel directions
- g. Input evaluation questionnaire \*

The materials with an asterisk can be found in Appendix B. along with a letter which was sent to applicants who were not accepted.

## Evaluation

A comprehensive system or model of evaluation was used to determine the successes, failures and improvements to be made in the workshop activities. The workshop evaluation personnel used an evaluation model prepared by the Phi Delta Kappa National Study Commission on Evaluation. Essentially, this model defined evaluation as "the process of delineating, obtaining and providing useful information for educational decision-making." (Stufflebeam et. al., 1970, p. 60) The useful information gained from the evaluation process was used to make decisions in four areas of evaluation namely, context, input, process and product evaluation. The areas of evaluation are defined as follows:

- C - Context Evaluation: Provides information for making decisions about educational or project objectives.
- I - Input Evaluation: Provides information for making structuring decisions pertaining to what strategy is most appropriate for use in a project.
- P - Process Evaluation: Provides information for making decisions regarding how well the strategy is working while it is in the process.
- P - Product Evaluation: Provides information for determining how well the project goals were accomplished. (Stufflebeam, et. al., 1970, p. 327)

These four areas of evaluation and in fact the whole system or model of evaluation developed by the PDK Study Commission is referred to as the CIPP model. (pronounced like 'sip')

The remaining pages of this evaluation will attempt to show how

### Context Evaluation

(Provides information for making decisions about educational or project objectives.)

Useful information for deciding about appropriate objectives was obtained from elementary and special education teachers, public school administrators, and college personnel involved in teacher training. In addition to the above information, certain guidelines set up by the Education Professions Development Act also influenced the overall objectives of this project.

### Input Evaluation

(Provides information for making structuring decisions pertaining to what strategy is most appropriate for use in a project.)

Information for input evaluation was obtained primarily through a questionnaire. The purposes of the questionnaire were to:

1. Determine the efficacy of the different methods used for advertising the workshop.
2. Determine participants' interest in and knowledge of specific topics to be covered in the workshop.
3. Provide participants with the opportunity to suggest topics or activities which they would like to learn more about.

The questionnaire was mailed to all participants approximately one month before the beginning of the first workshop. Completed questionnaires were received from 59 of the 63 workshop participants via return mail. Tabulation of the completed questionnaires was done immediately in order to make final revisions or additions to the daily workshop activities.

The tabulated questionnaire can be found on the following pages.

TABULATION OF QUESTIONNAIRE USED FOR  
INPUT EVALUATION

1. How did you first find out about the summer workshops?

Newspaper Article	23%
Brochure	22%
Radio Announcement	18%
Building Principal	16%
Superintendent	3%
Other	18%

2. Are you planning to register for the tuition-free graduate credit?

Yes	93%	No	7%
-----	-----	----	----

3. Would you be interested in attending the workshop if it were offered without graduate credit?

Yes	86%	No	12%
Undecided	2%		

4. Would you still be interested in attending this type of workshop if it were offered for two consecutive weeks instead of one?

Yes	75%	No	7%
Undecided	18%		

5. Please rate your knowledge of the following topics, using the rating system below:

N = No Knowledge      S = Some Knowledge      K = Knowledgeable

Jigs and fixtures used for mass production

N	76%	S	22%	K	2%
---	-----	---	-----	---	----

Interchangeability of parts and division of labor

N	75%	S	22%	K	3%
---	-----	---	-----	---	----

Cardboard Carpentry

N	41%	S	39%	K	20%
---	-----	---	-----	---	-----

Activities involving strength of materials used in the construction of such things as bridges and houses

N	85%	S	15%	K	
---	-----	---	-----	---	--

Food processing - making funnel cakes

N 60% S 36% K 4%

Food processing - making cheese

N 54% S 41% K 5%

Food processing - making bread

N 53% S 43% K 4%

Other types of food processing:

Preparing family meals, canning and preserving processes, cooking with children so they can observe the effects of freezing, heating, and frying on food stuffs, beer-making and dairying processes.

Making: peanut butter, chocolate candy bars, jelly, jam, pickles, preserves, butter, spaghetti, cookies, cakes, candy, bread, cheeses.

Working with leather

N 31% S 68% K 1%

Ordering tools and supplies

N 30% S 58% K 12%

Arranging the classroom for activities involving tools and materials

N 25% S 54% K 21%

Working with fibers: Making rope and items of rope; relating math, science, geography and crafts to the above activity.

N 51% S 46% K 3%

6. Please place an "x" next to the topics you would like to learn more about:

Jigs and fixtures used for mass production 27%

Interchangeability of parts and division of labor 17%

Cardboard carpentry 71%

Activities involving strength of materials used in construction of such things as bridges and houses

15%

Food processing - making funnel cakes

19%

Food processing - making cheese

25%

Food processing - making bread

15%

Other types of food processing

Working with leather

76%

Ordering tools and supplies

35%

Arranging the classroom for activities involving tools and materials

56%

Working with fibers: Making rope and items of rope; relating math, science, geography and crafts to the above activity

71%

Working with fibers: Working with wool, cotton flax; carding, spinning and weaving with simple and more involved looms.

63%

7. Please list below a special skill, activity or interest related to the workshop which you would like to know more about during the course of the workshop.

Woodworking, carpentry, cardboard carpentry. Papermaking, printing, graphic arts, silkscreen, photography, filmmaking. Construction procedures for recycling equipment. Food and recipes for kindergarten and small children. Use of these tools: bit, drills, saws, power tools, tools on the T4C cart. Use of these tools with handicapped, retarded, hyperactive children as well as normal ones safely and efficiently. Organizing the classroom for T4C program. Assembly-line production, breakdown of complex jobs into many simple jobs. More projects for girls. Building a loom. Suggestions for dispersal of funds. Setting up a food processing cart. Learning to teach children to make simple electric

machines. Experiences with electricity. Building and construction activities. Marketing. Decoupage. Ecology. Devising programs of projects for normal children, children with learning disabilities, children in the same classroom year after year. Devising a program to insure a good picture of career opportunities and skills necessary for handicapped individuals. Working with fibers, leather.

8. Comments:

### Analysis of Input Evaluation

The information obtained from the questionnaire enabled the project staff to make effective decisions regarding the daily instructional program. Many of the topics suggested by the participants were incorporated into the workshop activities. In some instances, time prevented developing some of the suggested activities, but provisions were made to at least display materials and publications related to these activities.

In regards to the most effective means of advertising the workshop, it was interesting to note that 41 percent of the participants found out about the workshop via radio announcements or newspaper articles. On the other hand, only 18 percent of the participants were informed of the workshop by their superintendent or principal. These results were somewhat discouraging since a major proportion of the recruitment time was spent attempting to inform school administrators of the proposed workshops. In this connection, a cover letter and a workshop brochure were sent to all county superintendents, local superintendents, and approximately 100 building principals in New Jersey school districts.

In contrast, a very small proportion of time was spent informing the radio and newspaper media about the proposed workshops. Given the same recruitment situation again, it appears from the data collected, that more time should be allotted to radio and newspaper advertisement.

### Process Evaluation

(Provides information for making decisions regarding how well a strategy is working while it is in process.)

Process evaluation was accomplished by gathering information from workshop participants approximately half-way through each of the three workshops. Information was gathered by administering an Interim Evaluation questionnaire. The purpose of the questionnaire was simply to determine how well each workshop was progressing after three days of activity. The information received from the tabulated questionnaire was used to decide if and what changes might be made in the remaining days of the workshop or possibly an upcoming workshop. Because of this, it was necessary to tabulate the questionnaire the same day that they were administered. In this way it was possible to make necessary changes as early as the next day of the workshop. All three individual Interim Evaluations from Workshops A, B, and C can be reviewed in the following pages. In addition a total tabulation of the Interim Evaluations, minus respondents comments, is included after the individual evaluations.

## TABULATION OF INTERIM EVALUATION

Workshop A

July 24 - July 28, 1972

Number of Participants Responding - 22

The purpose of this questionnaire is to help us determine how our workshop is progressing after three days of activity. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
 A Agree  
 U Undecided  
 D Disagree  
 SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. Adequate individual assistance has been given during the laboratory activities.

SA 59%    A 41%    U         D         SD     

Responses: 13            9            0            0            0

Comments:

- a. Everyone has been very helpful and co-operative. Whenever assistance is needed, all of the instructors come quickly to aid in every way.

2. There has been an ample supply of tools and materials available for performing laboratory activities.

SA 36%    A 50%    U 4%    D 10%    SD     

Responses: 8            11            1            2            0

Comments:

- a. Our group worked as a team and used the tools quickly and efficiently. At times we have had to wait for some tools, but that in itself is a learning experience: constructive use of free time. This is a realistic situation and there is always something else to do in the interim.

- b. Sometimes backsaws and dovetail saws were needed in more quantity. More rulers (long or tape) needed. I believe there could

have been more woodworking tools.

3. Demonstrations have been easy to observe.

SA 59%    A 41%    U           D           SD       

Responses: 13            9            0            0            0

Comments:

- a. Excellent
- b. Hard to hear. Also, the Wooden Shoe one was hard to see from the back, even when standing.

4. Most of my questions relating to lectures, demonstrations and laboratory procedures have been answered.

SA 59%    A 41%    U           D           SD       

Responses: 13            9            0            0            0

Comments:

- a. The lessons presented were among the best I have ever experienced. Bravo!

5. The instructional plan of having some lectures, some demonstrations, and some laboratory activities has been properly proportioned.

SA 36%    A 50%    U 10%    D 4%    SD       

Responses: 8            11            2            1            0

Comments:

- a. Really good! Very well organized.
- b. Would like more lab experience, like today (Wednesday July 26) but I realize that all aspects are necessary.
- c. More lab for elementary challenge.
- d. Not properly balanced - Wednesday crowded, Tuesday a vast wasteland.
- e. I need more lab work because I am not familiar with many of the tools.

6. Physical facilities in the classroom and laboratory have been arranged so as to facilitate learning.

SA 59%    A 41%    U           D           SD       

Responses: 13            9            0            0            0

## Comments:

- a. If you run into any problems, some one is always ready to assist.
  - b. The classroom arrangement, desks in rows, is a little out of date, but maybe the room is too small for another. At times a little crowded, but can understand.
7. I have observed some of the displays (books, charts, bulletin boards, etc.) in the laboratory and have obtained ideas which I could use with my students.

SA 55%      A 41%      U             D 4%      SD       

Responses: 12      9      0      1      0

## Comments:

- a. All of the displays were informative and helpful.
  - b. I have copied down addresses and ideas for field trips and other information.
  - c. This is why I came and am glad I did!
  - d. Many worthwhile ideas.
  - e. Very beneficial.
8. General Comments:

Please list below any suggestions you may have which might improve the workshop.

- a. I enjoyed the field trip. It would be nice to park closer to the I.A. building. I have been made to feel comfortable, although unskilled in this field.
- b. I would like more practical suggestions and ideas for use in the classroom.
- c. I feel the lecture on building was too long.
- d. This is most enjoyable. I am trying to take it all in.
- e. Would it be possible to secure a booklet containing a listing or description of projects or activities to do in class? What we have had so far is excellent, but I would like to have many more ideas to utilize in class.
- f. So far, so good. Most interesting, most beneficial.
- g. Trip to the Windmill was excellent! Additional time (e.g. evenings) to work on the projects would be helpful.
- h. It would be to our advantage if a study sheet or information sheet was given to all of us to find future information on all workshop ideas.
- i. I am very excited about this workshop. I just wish there would be more and that many more could attend.

- j. So far, I have enjoyed the workshop thoroughly and have no complaints.
- k. Things seem to be organized quite efficiently. I appreciate the furnishing of materials, tools, etc.
- l. Stools around the workbenches!
- m. Provide lab time from 8:00 to 9:00. An additional teacher would be advantageous, although individuals who gave assistance were there when needed.
- n. More quickie projects such as walnut jig and magic squares would be helpful in the classroom.
- o. Instructions where to park the first day, bring lunch or HUB, etc.
- p. I wish it was at least two weeks instead of one. I found it very profitable.

## TABULATION OF INTERIM EVALUATION

Workshop B

July 31 - August 4, 1972

Number of Participants Responding - 20

The purpose of this questionnaire is to help us determine how our workshop is progressing after three days of activity. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
 A Agree  
 U Undecided  
 D Disagree  
 SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. Adequate individual assistance has been given during the laboratory activities.

SA 40%    A 55%    U         D 5%    SD     

Responses: 8            11            0            1            0

Comments:

- a. Prof. Johnson is helpful and clear.
- b. Our instructors have abundant patience.
- c. I have always received assistance when I asked for it.
- d. Did not feel that asking questions was frowned upon.
- e. On the whole very satisfactory. Mr. Johnson and Ernie very pleasant and willing.
- f. Mr. Johnson helps you to do the project yourself.

2. There has been an ample supply of tools and materials available for performing laboratory activities.

SA 20%    A 50%    U 25%    D 5%    SD     

Responses: 4            10            5            1            0

Comments:

- a. More tools dealing with cardboard carpentry could have been available.

- b. Except cardboard tools.
- c. Mainly yes - with a few tools there was a long wait but worked out alternate jobs to do while our turn came up. It did slow down the completion of some projects.
- d. Materials - yes; tools - spent time waiting for tools often.
- e. Perhaps a list of tools used and tool sources, prices, etc.
- f. No classroom has more. It's good for us to adjust by staggering our activities, the children have to.
- g. It might help when 2 projects are going during the same lab period to have half the group doing one first, so the same tools will not be required by everyone at the same time.
- h. Many of us have had to wander from table to table because of the need to borrow and time is lost.
- i. There have been waiting periods for some of the tools.
- j. We seemed to usually have enough considering the size of our group.
- k. At time we had to wait for certain tools for some time.
- l. Sometimes we have to wait a bit because certain tools must be shared. This is felt only because time is so limited in one week.

3. Demonstrations have been easy to observe.

SA 55%    A 45%    U           D           SD       

Responses: 11            9            0            0            0

Comments:

- a. We were free to move so we could see, or check out later.
- b. Easy to observe, but the demonstrations for the cardboard work not adequate.
- c. It took cooperation of the individuals in the group - this group is cooperative and considerate so we adjust to see demonstrations.
- d. Except cardboard.

4. Most of my questions relating to lectures, demonstrations and laboratory procedures have been answered.

SA 50%    A 50%    U           D           SD       

Responses: 10            10            0            0            0

Comments:

- a. Help was readily given.
- b. The main problem I observed was where supplies (not tools) were to be found. If they could be in one area and this explained to us we could save time.

- c. Once I become involved in each project, every thing falls into place, or if I didn't really absorb some aspect of a project I have become aware and sought out an explanation.
- d. There has been a big attempt for demonstrators to answer questions

5. The instructional plan of having some lectures, some demonstrations, and some laboratory activities has been properly proportioned.

SA 55%      A 30%      U 5%      D 10%      SD         

Responses: 11                  6                  1                  2                  0

Comments:

- a. Excellent integration.
- b. The lecturer on cardboard carpentry wasn't able to help us too much, and there really wasn't time to see the slides. Our own instructor helped us more than the guest speaker.
- c. We often needed more time in the lab, however lectures were interesting too.
- d. Exhausting but exhilarating, probably the only way to do it from my experience in other workshops.
- e. Although Mr. Dresser's lecture was excellent, it was a bit too long for one sitting.
- f. Feel this is very helpful. Would suggest, however, that a field trip such as the windmill should be given adequate time. Perhaps if the lecture, which was excellent, terminated the period of time without the practical, that would help. Or divide the time better.
- g. This is the best, most concentrated workshop I have attended. I feel as if we've gotten more information, ideas, stimulation and skills than I would have dreamt was possible in so brief a time.
- h. Some of the lectures were a little long where this time could have been used in actual work.
- i. In some cases, a before lunch introduction and time to think of a project would be good - not lose working time to think up a project.

6. Physical facilities in the classroom and laboratory have been arranged so as to facilitate learning.

SA 50%      A 45%      U 5%      D               SD         

Responses: 10                  9                  1                  0                  0

## Comments:

- a. Sometimes working time was a little crowded.
  - b. We have merely to learn where things are. I think those at front tables had more ready access to tools.
  - c. Very attractive setting.
7. I have observed some of the displays (books, charts, bulletin boards, etc.) in the laboratory and have obtained ideas which I could use with my students.

SA 50%      A 45%      U 5%      D             SD       

Responses: 10      9      1      0      0

## Comments:

- a. Also brought to mind the need to display these pamphlets instead of filing them.
  - b. Displays are fine, but nothing like actually doing the thing.
  - c. Would be helpful to provide selected and critical bibliography to save time in copying from display.
  - d. I am full of ideas to share back at school in September. Both with students and teachers.
  - e. Although I myself will not be able to use these ideas, I plan to pass them on to those teachers in my school whom I think will be able to.
  - f. The comments to display and books were very helpful, and gave a frame of reference to additional sources of ideas.
  - g. I still intend to take notes on some of them.
  - h. Field trip ideas and craft projects.
8. General Comments:  
Please list below any suggestions you have which might improve the workshop.
- a. Maybe after the first day the student would be able to select those projects which interest him and spend more time pursuing them, rather than hurrying to keep up with the group.
  - b. For field trips more time should be allotted, or else eat lunch on the bus. Also prepare the class as to the planned arrival time back at the college the day before.
  - c. So far, so good. There's a lot to do in a little time but with one week allowed that's to be expected.
  - d. Need more time to complete workshop assignments before I start next one.
  - e. More time!
  - f. I would have found a ditto sheet of addresses more convenient than copying addresses and names from bulletin boards and/or bibliography.

- g. The greatest problem is finding enough time to complete the tasks. I think that Thursday's evening session will be very worthwhile for those people who can be there. However, I don't recommend making this a two - week course although for all practical learning reasons it should be.
- h. I've really been quite excited and satisfied with all that has been planned and included. I'm trying to develop a list of "minimum essentials" for assembling a workshop if it has to be done on my own. A list of this nature might be helpful to all.
- i. Some inner pressure to want to finish everything - wonder if I started too many but will use extra time Thursday to finish. I feel it important to try as many techniques as possible to get the greatest benefit.
- j. It has been an enlightening experience for me and we have covered much more than I dreamt possible. I am completely satisfied and pleased with the program. The planning and presentations have been excellent. My sincere thanks for being given the opportunity to attend this workshop and particularly to Mr. Johnson for his patience, assistance, dedication and great sense of humor.
- k. Would like to see a list of all instructional personnel from top to bottom address and affiliation for future reference. Should not have had registration during workshop time, annoying and time - consuming experience to start with especially for those who were experienced at registration and were able to complete in short time.
- l. 9:00 a.m. is a good starting time - I would have liked a 1/2 to 1 hour free time perhaps in the middle of the day to work on our projects. Then resume with lectures, etc.
- m. Tea is nice idea and well made. Registration delays workshop. More single girls.
- n. Break promptly at lunchtime. Thank you for the iced tea, it really helps. A slightly slower pace would help. The trip to the windmill was excellent - but I spent time on that question sheet and it wasn't collected. I've learned a lot about the use of tools.
- o. You've done a great job, This has been more worthwhile than the semester long T4C course last winter.
- p. I would like a workshop to be longer than one week and not have to complete all assignments as long as the main idea and concept is learned.
- q. I hope I'll be able to take more workshops. This is what I need. It is evident, though that this class is a must.
- r. Find the workshop thus far excellent. The instructors more than willing to help. The general atmosphere for learning good. Would suggest a two week workshop with more time to finish projects.

## TABULATION OF INTERIM EVALUATION

Workshop C

August 7 - August 11

Number of Participants Responding - 20

The purpose of this questionnaire is to help us determine how our workshop is progressing after three days of activity. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
 A Agree  
 U Undecided  
 D Disagree  
 SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. Adequate individual assistance has been given during the laboratory activities.

SA 55%    A 40%    U 5%    D           SD       

Responses: 11            8            1            0            0

Comments:

- a. Considering class size, help has been more than efficient.  
 b. Mr. J. and Ernie were most helpful.

2. There has been an ample supply of tools and materials available for performing laboratory activities.

SA 30%    A 60%    U           D 5%    SD, 5%

Responses: 6            12            0            1            1

Comments:

- a. Again, taking into consideration the class size, I feel everyone has tried to share, most tools and materials have been in ample supply.  
 b. Excellent tools and plenty of materials.  
 c. There were enough tools only because different activities were progressing at the same time.

- d. Not enough tools for cardboard carpentry, especially basic cutting tool - compensated by using other machines.
- e. Not sufficient tools most of the time, but on Wednesday the demonstration and the work time very feasible. Equipment seemed easier to obtain and utilize.

3. Demonstration have been easy to observe.

SA 35%    A 45%    U 5%    D 10%    SD     

Responses: 7            9            1            2            0

Comments:

- a. Lab demos better for classviewing than classroom demos.
- b. Especially appreciated demonstration of correct use of tools.
- c. Every effort was made so that all could see and observe.
- d. A - considering class size.
- e. Perhaps dividing the class into two demonstration groups would have made things more easily visible.
- f. Difficult with seating arrangement

4. Most of my questions relating to lectures, demonstrations and laboratory procedures have been answered.

SA 55%    A 35%    U 5%    D 5%    SD     

Responses: 11            7            1            1            0

Comments:

- a. Very good individual attention.

5. The instructional plan of having some lectures, some demonstrations, and some laboratory activities has been properly proportioned.

SA 55%    A 25%    U 10%    D 5%    SD 5%

Responses: 11            5            2            1            1

Comments:

- a. I feel that the lab activities were the most meaningful
- b. Very well proportioned.
- c. Just as a child I like to be active as possible and this workshop afforded me this activity - - I learn best by doing.
- d. Lecture often too long and then not adequate time to finish project.

- e. Except for the two hour lecture on construction. I felt this was a little much.
- f. (S.D.) Not enough time to work due to large number of people utilizing equipment.

6. Physical facilities in the classroom and laboratory have been arranged so as to facilitate learning.

SA 60%    A 30%    U 5%    D           SD 5%

Responses: 12            6            1            0            0

- a. Not in classroom. Difficult to hear and see. (SD) Classroom good for slides, not demonstrations.

7. I have observed some of the displays (books, charts, bulletin boards, etc.) in the laboratory and have obtained ideas which I could use with my students.

SA 65%    A 35%    U           D           SD       

Re sponses: 13            7            0            0            0

Comments:

- a. I got some very good ideas and compiled quite a bibliography of books to send for.
- b. Excellent displays, bibliography of pamphlets and books will be very helpful to me.
- c. Enjoyed the field trip beyond measure. Fantastic. Need to have more of these
- d. I realize it's difficult to find early primary materials in this area however, I was hoping to see more information for things to do strictly with 5 - 6 year olds.

8. General Comments:

Please list below any suggestions you have which might improve the workshop.

- a. Field trip with ditto sheet of questions was excellent. Have found many valuable sources of information and experiments of demonstrations that students will be very much interested in. An excellent workshop to date. Am looking forward to remainder of week.
- b. More time. More specific activities for projects to do with our class.

- c. When visiting the windmill, having question sheets somehow hampered the first phase of enjoyment and appreciation of the mill.
- d. Coffee break about 10:30 a.m. and 3:00 p.m.
- e. Perhaps two-week workshop for more time to work on projects. Also more projects.
- f. More examples of projects students could produce easily. If only we had more time.
- g. Teachers are strongly motivated - Excellent.
- h. The one week workshop was excellent, but I think two weeks would be better. Mr. Johnson was very patient, very understanding, and extremely helpful in every way. He gave use much "information and inspiration."
- i. This has been the best workshop I ever attended. I feel that I will go back to my class loaded with new ideas and how to get them done. The staff has been so patient and helpful, and pleasant.
- j. Demonstrate to teachers how to make tools, and/or equipment for the classroom, or explain how else to obtain or adapt equipment.
- k. Group people according to grade level. Some activities were beyond my grade level.
- l. Need to use more media - slides, film loops, overhead, to get ideas across to people. If concepts were not clear, a film loop presentation would permit the student to readily grasp information at his own rate of speed.
- m. I was disappointed that there were not more activities designed for the younger, less coordinated child, although I personally loved doing the activities presented. I was also looking for ways to improvise when proper facilities and tools are not available, which is the case in my school district.

## TOTAL TABULATION OF INTERIM EVALUATION

Workshops A, B, C,

Total Number of Participants - 62

The purpose of this questionnaire is to help us determine how our workshop is progressing after three days of activity. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
 A Agree  
 U Undecided  
 D Disagree  
 SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. Adequate individual assistance has been given during the laboratory activities.

SA 51%    A 45%    U 2%    D 2%    SD     

Responses: 32    28    1    1    0

2. There has been an ample supply of tools and materials available for performing laboratory activities.

SA 29%    A 53%    U 10%    D 6%    SD 2%

Responses: 18    33    6    4    1

3. Demonstrations have been easy to observe.

SA 49%    A 43%    U 4%    D 4%    SD     

Responses: 31    27    2    2    0

4. Most of my questions relating to lectures, demonstrations and laboratory procedures have been answered.

SA 55%    A 41%    U 2%    D 2%    SD       

Responses: 34    26    1    1    0

5. The instructional plan of having some lectures, some demonstrations, and some laboratory activities has been properly proportioned.

SA 48%    A 36%    U 8%    D 6%    SD 2%

Responses: 30    22k    5    4    1

6. Physical facilities in the classroom and laboratory have been arranged so as to facilitate learning.

SA 57%    A 37%    U 4%    D           SD 2%

Responses: 35    24    2    0    1

7. I have observed some of the displays (books, charts, bulletin boards, etc.) in the laboratory and have obtained ideas which I could use with my students.

SA 57%    A 39%    U 2%    D 2%    SD       

Responses: 35    25    1    1

The results of the Interim Evaluations indicated that the workshops were progressing according to plan. The information received, provided evidence that the workshop participants were generally pleased and satisfied with the activities they had experienced so far. The comments made by individuals on the questionnaire were especially useful in determining some minor changes to be made. In a few instances, some respondents felt that there was not an ample supply of tools available for a particular activity. Noticing this, additional tools were borrowed from other labs in order to help alleviate this problem. In addition the workshops were planned so as to have more than one activity progressing at the same time. This procedure tended to eliminate all participants needing the same tool at the same time.

In conclusion, the tabulated results of the Interim Evaluation provided the Project Staff with information which confirmed most of their assumptions, namely, that the workshop participants were pleased with and learning from, the workshop activities. Consequently, few changes were made in the conduct of the workshop. The few changes that were made however, were very beneficial since they not only helped the overall success of the workshop but enabled the participants to realize that their suggestions were being acted upon.

Product Evaluation

(Provides information for determining how well the project goals were accomplished.)

A final evaluation, in the form of a questionnaire was administered to

all workshop participants at the completion of each workshop. The purposes of the questionnaire were to provide information for determining:

1. How well project objectives were accomplished.
2. Respondents opinion regarding the value and success of their particular workshop.
3. The desire for additional workshops or assistance involving tools and materials during the school year.
4. The overall effectiveness of particular workshop activities.

All three final evaluations have been tabulated and appear on the following pages. In addition, a combined tabulation of the three final evaluations, less respondents' comments can be found at the end of the individual workshop evaluations.

## TABULATION OF FINAL EVALUATION

Workshop A

July 24 - 28, 1972

Number of Participants Responding - 22

Directions: This final questionnaire will help us determine how well our workshop has succeeded. Please read each statement and then circle your response according to the following rating system:

SA	Strongly Agree
A	Agree
U	Undecided
D	Disagree
SD	Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. I feel that I have accomplished Objective 1. "be able to safely and with a measure of skill, use common hand tools, machinery and materials appropriate for use with elementary school children."

SA 44%    A 52%    U 4%    D         SD     

Response: 10            12            1            0            0

Comments:

- a. I feel (after spending this concentrated period of time) much more familiar with the tools, but the measure of skill is questionable.
  - b. I just feel somewhat inadequate - - - I know the kids will help in this area.
  - c. I need lots more practice.
  - d. Although I have greatly increased my skill (which was not great) with hand tools, I do not feel qualified to teach the use of machinery.
2. I feel that I have accomplished Objective 2. "develop a minimum of three curriculum related to the elementary school curriculum which involve various tools, materials, machines and industrial processes. 'Develop' in this case, means making the plans, procedures and hardware necessary to actually implement the activities in the forthcoming school term with elementary children."

	SA <u>74%</u>	A <u>26%</u>	U <u>    </u>	D <u>    </u>	SD <u>    </u>
Responses:	<u>17</u>	<u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>

## Comments:

- a. We covered several experiences which will be helpful in the coming school term.
  - b. Excellent and extensive ideas that can be incorporated into any curriculum.
  - c. (Strongly Agree) - At least!.
3. I feel that I have accomplished Objective 3. "participate in a field trip to a site (museum, factory, craft fair, restored historical site) which illustrates how man has used tools, materials and his ingenuity to meet such basic needs as food, clothing, shelter, transportation and communication. This field trip will be directly related to the workshop activities and will provide teachers with both information and inspiration useful for future teaching."

	SA <u>83%</u>	A <u>9%</u>	U <u>4%</u>	D <u>4%</u>	SD <u>0</u>
Response:	<u>19</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>    </u>

## Comments:

- a. Good Trip!
- b. Very enjoyable. Mr. Jorgenson made it perfect.
- c. Very interesting. Covered a lot of ground along construction lines in very limited space and time
- d. The trip was very good because I was able to broaden my knowledge of windmills and how they are constructed. I am undecided about how I will bring this into my room and this is unfortunate because the trip took so much time from the workshop.
- e. I loved going to the windmill - - - it was informative and enjoyable.
- f. The theory from the morning lecture meant even more after viewing the construction of the windmill.
- g. The windmill trip was very interesting and informative relative to the many facets of technology.

4. I feel that I have accomplished Objective 4. "Maintain a class notebook of activities involving tools and materials which can be used in the elementary classroom to promote learning in the content areas, e.g. math, social studies, music, language, arts etc.

SA 57%    A 39%    U         D 4%    SD     

Responses:    13    9    0    1    0

Comments:

- a. Some excellent source material.
- b. It would have been good to have a few more handouts.

5. I feel that I have accomplished Objective 5. "Become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children.

SA 31%    A 66%    U         D         SD 4%

Responses:    7    15    0    0    1

Comments:

- a. Excellent example set.
- b. I circled A but feel some negative things gave me insights into what not to do, i.e. too many people in too small a space doing too large projects, too much borrowing of tools, etc.
- c. This was not touched upon. I have no ideas about room arrangement.

6. If this workshop was offered again, I would recommend it to my colleagues.

SA 87%    A 13%    U         D         SD     

Responses:    20    3    0    0    0

Comments:

- a. This workshop is a real must for the classroom teacher.
- b. By all means, if it was altered I would come again myself.
- c. I'd like to take it again myself.
- d. I wish the workshop was another week! All of the activities were great for pursuing further projects and ideas.
- e. Definitely! I'd even come.
- f. I feel that Mr. Johnson was the entire workshop. He was fantastic.

7. I am planning to conduct tool-material activities with my students during the upcoming school year.

SA 83%    A 17%    U           D           SD       

Responses:      19         4         0         0         0  

Comments:

- a. T4C
- b. Hope to finally get a budget.
- c. I would like people to come into our school to conduct a workshop for us.
- d. Limited to severely retarded, hand tools only.

8. I would like to receive technical assistance during the school year.

SA 48%    A 35%    U 17%    D           SD       

Responses:      11         8         4         0         0  

Comments:

- a. In craft workshop - - - glass cutting, plastic dips, copper enameling.
- b. Craft workshop.
- c. Possibly, e.g. being able to send rope samples to be tested.
- d. By all means. I would like to become involved in T4C or another program like it.
- e. Just perhaps someone to phone, but I can call T4C.
- f. I don't know yet.
- g. Possibly
- h. Any help would be helpful.
- i. I would like to know who would be available for this type of assistance.
- j. So much I don't know how to do, tools I've never used, etc.

9. In order to obtain technical assistance, I would be willing to attend a non-credit workshop, one evening per week at Trenton State College during the Spring semester.

SA 36%    A 31%    U 21%    D 8%    SD 4%

Responses:       8         7         5         2         1  

Comments:

- a. YES
- b. Happily!
- c. Yes, but I live too far away.
- d. Would enjoy it even if it didn't relate to my class.
- e. How about workshops off campus, centered in different areas.  
(Long drive to Trenton State College)
- f. Would depend on what was offered and if I had a free night.
- g. Summer would be better.
- h. Only if someone else will come with me. (I live 65 miles away)
- i. Not sure I will be able
- j. Too far away

10. I would be willing to pay a fee (\$20 - \$30) to cover the costs of instruction and supplies associated with the non - credit workshop.

SA 26%    A 31%    U 35%    D         SD 8%

Responses:    6    7    8    0    2

Comments:

- a. I just really don't know.
- b. I'd probably want to if the Board of Ed. would pay.
- c. School at which I teach will help here

11. Please evaluate the overall effectiveness of the following activities. Consider the effectiveness of the presentation and the practical use of the activity in your teaching situation. Circle the appropriate rating below each statement:

- a. Activities involving carding, spinning and weaving of wool.

Excellent 70%    Good 17%    Fair 8%    Poor     

Responses: 16    4    2    0  
1 absent

Comments:

- a. Wonderful reinforcement for counting one's blessings in having been born a liberated woman in the twentieth century.
- b. Good early involvement.
- c. Very nice

- d. Materials inexpensive and simple to make and use  
 e. My boys and girls would climb the walls.  
 f. Good for historical demonstration but not much practical use.
- b. Knowledge of tools and procedures used in making wooden shoes and shingles.

Excellent 61%    Good 31%    Fair 8%    Poor       

Responses: 14                    7                    2                          

Comments:

- a. A miniature project has a lot of possibility.  
 b. Good for telling, but kids couldn't do.  
 c. Excellent background information which can make the program interesting.  
 d. Stimulating - thought provoking - enriching.
- c. Activities involving strength of materials used for construction.

Excellent 35%    Good 43%    Fair 17%    Poor 5%

Responses: 8                    10                    4                    1

Comments:

- a. I found the lab work especially interesting.  
 b. So much to learn in such a short time. Excellent presentation, but I was a bit confused. Would have liked a follow-up on worksheets, right answers, etc  
 c. Excellent background information and lab work, wish there was some tangible way to take into the classroom to illustrate.  
 d. Lecture was too long.  
 e. Have no use for.
- d. Visit to the Dutch Windmill.

Excellent 70%    Good 22%    Fair 8%    Poor       

Responses: 16                    5                    2                          

Comments:

- a. Has a lot of potential  
 b. Extremely valuable experience.

- c. Took too much time out of our workshop
- d. Interesting because I like history, but not terribly relevant.
- e. More appropriate for me than as a field trip for my boys.
- f. I feel that children might not be able to understand Mr. J. too well.

e. "Projects in a nutshell" and magic squares

Excellent 87%      Good 13%      Fair             Poor         
 Responses: 20                      3                      0                      0

Comments:

- a. Especially please with magic squares box.
- b. This was quite relevant and interesting. Good ideas for continuing growth in a math center.
- c. Great curriculum possibilities.
- d. Easy to make and many uses.
- e. Limitless!
- f. Very worthwhile
- g. More of this type activity!
- h. Things I can really do with my class.
- i. More short easy activities for young children.

f. Cardboard Carpentry

Excellent 66%      Good 31%      Fair 3%      Poor         
 Responses: 15                      7                      1                      0

Comments:

- a. Good - due to expense
- b. Par Excellence!
- c. Have had previous experience and made many instructional materials with this material.
- d. The demonstrator should be able to suggest correct tools for given needs so excessive mistakes are avoided.
- e. I feel that some of the tools were too cumbersome for the space problem.

g. Food Processing

Excellent 4%      Good 35%      Fair 26%      Poor 35%  
 Responses: 1                      8                      6                      8

## Comments:

- a. Poorly organized. Lacked new experiences. Would like a list of basic equipment to be placed on cart to be used in several classrooms.
- b. Feel this was a bit repetitive. Most of us have done this type of thing in the classroom, and Ginny has so many other excellent ideas that would be more helpful and inspiring.
- c. This could have been done with a handout or a thirty minute discussion and time used to a better advantage.
- d. In many ways, insufficient equipment, poor organization not particularly relevant.
- e. No new recipes, recipes not difficult or strange enough for us to apply concepts instructor wanted us to learn.
- f. I would have preferred to make butter or something uncommon
- g. A little overdone.
- h. She didn't tell me what I wanted to know. Too many blanks in time.
- i. Production idea quite good. Could have been varied for many uses and experiences.
- j. Project contained good ideas and related activities but I would have organized it differently and provided more explanation.
- k. Excellent for a bachelor

## h. Working with leather

Excellent 78%    Good 18%    Fair 4%    Poor       

Responses: 18                      4                      1                      0

## Comments:

- a. Possibilities unlimited.
- b. Although expensive to begin, it has a high child interest.

## i. Ropemaking, testing rope, rope projects.

Excellent 83%    Good 17%    Fair           Poor       

Responses: 19                      4                      0                      0

## Comments:

- a. I can see this used in conjunction with so many sea stories.
- b. I enjoyed this immensely
- c. Par Excellence!

- d. A lot of the ideas required too much strength and dexterity for my kids.
- j. Ideas for safely arranging the elementary classroom to accommodate tools and materials.

Excellent	<u>43%</u>	Good	<u>43%</u>	Fair	<u>4%</u>	Poor	<u>4%</u>
Responses:	<u>10</u>		<u>10</u>		<u>1</u>		<u>1</u>

## TABULATION OF FINAL EVALUATION

Workshop B  
 July 31 - August 4  
 Number of Participants Responding - 22

Directions: This final questionnaire will help us to determine how well our workshop has succeeded. Please read each statement and then circle your response according to the following rating system:

SA	Strongly Agree
A	Agree
U	Undecided
D	Disagree
SD	Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. I feel that I have accomplished Objective 1. "be able to safely and with a measure of skill, use common hand tools, machinery and materials appropriate for use with elementary school children."

SA	<u>45%</u>	A	<u>55%</u>	U	<u>    </u>	D	<u>    </u>	SD	<u>    </u>
Responses:	<u>10</u>		<u>12</u>		<u>0</u>		<u>0</u>		<u>0</u>

Comments:

- a. Safety importance stressed and carried out in class projects because of awareness of instructors.
  - b. For someone who could never saw a straight cut or hammer a nail before, I'm delighted that I can, and if I can, the children can too.
  - c. This is because I really used them meaningfully in my own projects.
  - d. I feel I still need more practice, of course, this is our responsibility.
  - e. Hand tools - fine - would need more practice on machines, to know their various uses would take longer than a week workshop.
  - f. Could use another week or another workshop.
2. I feel that I have accomplished Objective 2. "develop a minimum of three curriculum experiences related to the elementary school curriculum which involve various tools, materials, machines and industrial processes. 'Develop' in this case, means making the plans, procedures and hardware necessary to actually implement the activities in the forthcoming school term with elementary children.

SA 55%    A 45%    U           D           SD         
 Responses: 12        10        0        0        0

Comments:

- a. Became aware of many possibilities not only in materials designed for project but other ideas came to mind to further develop projects.
  - b. The variety and areas are good.
  - c. During the next week or so I will make plans adapting a number of activities to young children (kindergarten) and feel I have enough information to go ahead.
  - d. I do have ideas to use in the classroom but haven't actually written out the plans yet, but do feel positive about the activities though.
3. I feel that I have accomplished Objective 3. "participate in a field trip to a site (museum, factory, craft fair, restored historical site) which illustrates how man has used tools, materials and his ingenuity to meet such basic needs as food, clothing, shelter, transportation and communication. This field trip will be directly related to the workshop activities and will provide teachers with both information and inspiration useful for future teaching."

SA 64%    A 27%    U 9%    D           SD         
 Responses: 14        6        2        0        0

Comments:

- a. The windmill trip was excellent - extremely informative.
  - b. Our trip showed very interesting use of tools and materials and gave us valuable insights into problems of constructions, but it is hard to see much of a direct application to teaching younger children.
  - c. Unusually interesting trip, which followed excellent lecture - bringing to mind importance of preparation necessary before a field trip - followed by excellent questions reviewing learnings of morning lecture.
  - d. Would like to have had opportunity for more trips - will be able to appreciate workmanship on future trips better.
4. I feel that I have accomplished Objective 4. "Maintain a class notebook of activities involving tools and materials which can be used in the elementary classroom to promote learning in the content areas, e.g. math, social studies, music, language, arts, etc."

SA 60%    A 32%    U 4%    D 4%    SD \_\_\_\_\_  
 Responses: 13        7        1        1        \_\_\_\_\_

## Comments:

- a. Notebook notes could be used as a workshop presentation to a teachers group, spreading information for T4C.
  - b. Information has been given in an orderly well-organized manner, making it easy to keep notes.
  - c. This will be my basic reference when I attempt these projects on my own. This is the most valuable thing I am taking away from the course short of my own experience.
  - d. My notes are very useful but they're not complete enough to be used as a math lesson per se.
  - e. (Disagree) - Failed to do this through my own fault.
5. I feel that I have accomplished Objective 5. "Become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children."

SA 23%    A 45%    U 18%    D 4%    SD \_\_\_\_\_  
 Responses: 5        10        4        1        \_\_\_\_\_  
 (2 no responses)

## Comments:

- a. I am going back to a classroom with no tools, few materials, but perhaps the things I have made will impress my principal with what can be done with very little and I can bring a few things from home, now that I know what.
  - b. Very young should not use knives or work with hot plates or cooking fat.
  - c. Perhaps had there been more time, more could be done with - how do you teach safety in classroom - more ideas might come to light - even for storing of classroom scissors - charts - does the teacher or pupil both make these rules.
  - d. I felt somewhat comfortable in the arrangement I used. This was not a very important objective to me.
6. If this workshop was offered again, I would recommend it to my colleagues.

SA 96%    A \_\_\_\_\_    U 4%    D \_\_\_\_\_    SD \_\_\_\_\_  
 Responses: 21        0        1        0        0

## Comments:

- a. This was one of the best workshops I've attended in my years of teaching.
  - b. I'm delighted I was included and have much enthusiasm about it.
  - c. It has really been worthwhile.
  - d. S.A. - definitely
  - e. I would be interested in extended workshop of this kind after school hours.
  - f. I can't agree strongly enough - the course has really exceeded my initial expectations which were already high, I was eager about it and the course has reinforced and surpassed my expectations.
  - g. Expecially levels 3 - 6
  - h. I feel it would be a good idea to notify former participants if and when there is another workshop like this so we may be sure to convince our colleagues to apply.
  - i. I really enjoyed it and learned a great deal.
  - j. I would take it again myself if you offere : a second stage of activities.
7. I am planning to conduct tool-material activities with my students during the upcoming school year.

SA 60%    A 23%    U 18%    D           SD       

Responses: 13            5            4                                    

## Comments:

- a. Agree - if funds are available
  - b. Perhaps next year.
  - c. SA - We have a prevocational program already in progress.
  - d. I am determined to manage it somehow.
  - e. Think T4C a definite need for all teachers - with or without tools many projects are possible.
8. I would like to receive technical assistance during the school year.

SA 45%    A 18%    U 36%    D           SD       

Responses: 10            4            8            0            0

## Comments:

- a. Should I feel that I can do #7.
  - b. Whenever possible - I'd like a student teacher in September in this area.
  - c. If possible, workshops on Saturday morning or perhaps one evening per week for instruction and availability of materials (if possible)
  - d. It's difficult to plan everything at this point without knowing the class but it certainly would be helpful if needed.
9. In order to obtain technical assistance, I would be willing to attend a non-credit workshop one evening per week at Trenton State College during the Spring semester.

SA 36%    A 27%    U 27%    D 9%    SD       

Responses: 8            6            6            2                  

## Comments:

- a. If it contained crafts and further use of tools, particularly hand tools.
  - b. SA - unless school obligations concerning my job were on a conflicting night.
  - c. I live close enough so travel wouldn't be a problem and I am very interested in this field.
  - d. Depends on other commitments but I would appreciate being notified as to availability of workshop.
  - e. Since I have just finished my graduate program I would like a semester break or two. Perhaps another time.
  - f. Too much travel involved coming to Trenton. Glassboro State would be much more convenient for those in South Jersey.
  - g. My only hesitation is due to the distance from home - 35 miles, over an hour's drive.
10. I would be willing to pay a fee (\$20 - \$30) to cover the costs of instruction and supplies associated with the non-credit workshop.

SA 18%    A 60%    U 23%    D           SD       

Responses: 4            13            5

## Comments:

- a. It would be worth it, and my school might help pay - if I decide to take it.
  - b. Yes, because of the need for more knowledge and because I've had some free courses.
  - c. School districts should pay.
  - d. Better if funded of course.
11. Please evaluate the overall effectiveness of the following activities Consider the effectiveness of the presentation and the practical use of the activity' in your teaching situation. Circle the appropriate rating below each statement:

- a. Activities involving carding, spinning and weaving of wool.

Excellent 60%      Good 27%      Fair 9%      Poor     

Responses: 13                      6                      2                      0  
(1 abstain)

## Comments:

- a. Very interesting. I would be more enthused on a larger scale which would require more time - but produce something impressive.
  - b. Much patience given and needed. A two-way street.
  - c. The presentation was excellent and I myself enjoyed the activity but it would be difficult for my children. However I would like to do it when I move to a different level.
  - d. Having the material in hand while the speaker gives direction is easier to do than having all the directions and trying to remember the steps.
  - e. The small looms would be easy enough to make a set of, for a group of children.
- b. Knowledge of tools and procedures used in making wooden shoes and shingles.

Excellent 27%      Good 55%      Fair 9%      Poor 4%

Responses: 6                      12                      2                      1  
(1 abstain)

## Comments:

- a. Some areas were already known to me, but the interesting presentation and the idea of including them was refreshing.
- b. Very interesting indeed. Thorough job.

- c. Very interesting, would help me explain it to children, but not an activity for them to do.
- d. This activity was enlightening to me, however, I feel children would gain more seeing the actual demonstration firsthand as we did. It would be less meaningful explained by me and the tools are rather specialized.
- e. Have understanding but would not use with present age group except for knowledge I've gained that I could adapt to their ability and situation.
- f. If the classroom teachers taught a unit on Holland in our system I would rate it excellent.

c. Activities involving strength of materials used for construction.

Excellent	<u>36%</u>	Good	<u>55%</u>	Fair	<u>9%</u>	Poor	<u>    </u>
Responses:	<u>8</u>		<u>12</u>		<u>2</u>		<u>0</u>

Comments:

- a. Again - would adapt to block situation, simple construction.
- b. Unfortunate that there was not more time.
- c. Very informative.
- d. I felt this was too technical for the group.

d. Visit to Dutch Windmill

Excellent	<u>55%</u>	Good	<u>27%</u>	Fair	<u>13%</u>	Poor	<u>    </u>
Responses:	<u>12</u>		<u>6</u>		<u>3</u>		<u>0</u>

(1 abstain)

Comments:

- a. A wonderful place - very interesting people and the trip through that countryside --- beautiful.
- b. With young children I'd suggest he add samples of grains and flour.
- c. Have plans to take a group in early November.
- d. I enjoy but will appreciate more when I have a better understanding of the windmill's working - I want to finish reading of Dikes and Windmills.

- e. An interesting trip for me, but not a field trip for my class. It was rather far, and took a lot of time in a very busy week.
- f. Great follow-through; stressed the value of a class trip and the preparation needed beforehand.

e. "Projects in a nutshell" and magic squares

Excellent 83%    Good 13%    Fair           Poor       

Responses: 18                      3                      0                      0

(1 absent)

Comments:

- a. Many ideas from these projects and worthwhile ones for all ages
- b. Children respond to puzzles and games more readily when tangible devices are offered them.
- c. This gave me a number of simple activities to introduce in the art room that would relate to the classroom activities.
- d. Will use vocation and advocation.
- e. Marvelous ideas and direction by Mr. Johnson

f. Cardboard carpentry

Excellent 32%    Good 50%    Fair 9%    Poor 4%

Responses: 7                      11                      2                      1

(1 abstain)

Comments:

- a. Fantastic.
- b. I appreciate the effort Miss Burns put into her presentation.
- c. Now I like the sabre saw!
- d. Presentation was good, but materials and one's imagination can "grow."
- e. Good idea, poor presentation. Supplier needs further development for wider use - little application for me, much for others - tools and materials need more development.
- f. Could use further work in this area.

- g. I found the tools difficult to use and felt preliminary planning (math skills) needed more emphasis. Perhaps that would have watered down creativity & experimentation, I don't know.
- h. I enjoyed doing my projects but felt safety should have been stressed.
- i. We can continue to put our learning experience to use if we need more articles.
- j. The medium has fascinating possibilities. The outside speaker's presentation was weak, and lacked the skill needed to help us.

g. Food processing

Excellent 41%    Good 45%    Fair 9%    Poor 4%  
 Responses: 9                      10                      2                      1

Comments:

- a. The ideas generated go farther than the actual foods that were prepared.
- b. One can improvise new recipes from our learning experience and increase our knowledge.
- c. I felt that this was one activity that a demonstration would have sufficed for most of the foods. (Funnel and funnel cake excepted.) I do appreciate the recipes which were introduced and collected.
- d. Fine for many subject areas.
- e. Good range of activity.
- f. Pleasant but not informative, other than the opportunity to work with metal and silkscreen. I do think food for children should be nutritious as well as tasty and fun to make.
- g. I always needed to be pushed into trying this.
- h. I rated this fair not because of any fault of the workshop but, for the exception of silk screening, there was little I would teach about foods in the art room (except print with them!)
- i. The choice of activities was excellent.

h. Working with leather

## h. Working with leather.

Excellent 60%    Good 36%    Fair           Poor       

Responses: 13                      8                      0                      0

(1 abstain)

Comments:

- a. I believe the cost of equipment is out of my school budget range.
- b. Good demonstration of tools - simple directions etc.
- c. Expensive to use in classroom.
- d. Gained a new way of working with these materials
- e. I find one difficulty - my budget.
- f. Can see how kids will really get excited over such an activity.
- g. I felt however that this may be too expensive for most classrooms.
- h. Can use it to make other things.
- i. But how much does it cost?

## j. Ideas for safely arranging the elementary classroom to accommodate tools and materials.

Excellent 32%    Good 45%    Fair 13%    Poor       

Responses: 7                      10                      3                      0

(2 abstain)

Comments:

- a. Would have appreciated more specific suggestions on organizing many children with limited space and equipment.
- b. I can not arrive at a decision as I feel I'm not sure we talked exactly about this as yet.
- c. Profitable
- d. Shop certainly set up for safety.
- e. Would like more information in this area.
- f. I feel this was the underlying theme of the workshop. Safety was a consideration in all of the activities, not a separate unit.
- g. We all approach it as a classroom situation. It comes naturally.
- h. This is a thing I must work out for my class myself.

## 1. Ropemaking, testing rope, rope projects.

Excellent 64% Good 27% Fair 4% Poor       Responses: 14                    6                    1                    0  
(1 abstain)

## Comments:

- a. Here's something cheap, easy and rewarding.
- b. I have not done too much in lab on it.
- c. Top Billing!
- d. Did very little with this but see possibilities.
- e. Children (young) can really work with this.
- f. I can see the effectiveness of using these projects, all of them, with a class and how encouraged they would be by the results. I enjoyed them too.

## TABULATION OF FINAL EVALUATION

Workshop C  
 August 7 - August 11  
 Number of Participants Responding - 18

Directions: This final questionnaire will help us determine how well our workshop has succeeded. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
 A Agree  
 U Undecided  
 D Disagree  
 SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. I feel that I have accomplished Objective 1. "be able to safely and with a measure of skill, use common hand tools, machinery and materials appropriate for use with elementary school children."

SA 67%    A 33%    U         D         SD     

Response: 12        6        0        0        0

Comments:

- a. I have learned the basics - I need practice.
- b. Wonderful experience! Wunderbar!
- c. But I wish we had been taught to improvise - we have a very small budget and do not always have the proper tools.
- d. SA - but I did not do enough myself.
- e. I've learned to manipulate materials and equipment with ease.

2. I feel that I have accomplished Objective 2. "develop a minimum of three curriculum experiences related to the elementary school curriculum which involve various tools, materials, machines and industrial processes. 'Develop' in this case, means making the plans, procedures and hardware necessary to actually implement the activities in the forthcoming school term with elementary children.

SA 72%    A 28%    U         D         SD     

Responses: 13        5        0        0        0

## Comments:

- a. This is an excellent objective and well fulfilled.
  - b. I am very much pleased with all I have learned.
3. I feel that I have accomplished Objective 3. "participate in a field trip to a site (Museum, factory, craft fair, restored historical site) which illustrates how man has used tools, materials and his ingenuity to meet such basic needs as food, clothing, shelter, transportation and communication. This field trip will be directly related to the workshop activities and will provide teachers with both information and inspiration useful for future teaching."

SA 67%    A 33%    U           D           SD       

Responses: 12                    6                    0                    0                    0

## Comments:

- a. Excellent source for children studying other lands, for teachers lacking in folklore of foreign countries, seeing how one man made use of his abilities was great. Fine example of use of tools.
  - b. I am more aware that these activities do exist, but I am not sure I would know where and when they are available. I just assume checking with the newspaper would help with specific information.
  - c. Trip was a very good and unusual choice.
  - d. Lovely trip!
  - e. Absolutely an intriguing and educational learning experience.
4. I feel that I have accomplished Objective 4. "Maintain a class notebook of activities involving tools and materials which can be used in the elementary classroom to promote learning in the content areas, e.g. math, social studies, music, language, arts, etc."

SA 72%    A 28%    U           D           SD       

Responses: 13                    5                    0                    0                    0

## Comments:

- a. Great idea
- b. I have gathered a wealth of ideas and material and will use my notebook.
- c. Excellent correlation - could there be more duplicated materials given on "procedures" of project work.
- d. Plan to elaborate on notebook information to make more meaningful for J.P.E. students in social studies and science methods.
- e. This is one notebook I will actually use and continue to add to.

5. I feel that I have accomplished Objective 5. "Become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children.

SA 50%    A 39%    U           D 6%    SD       

Responses: 9                      7                      0                      1                      0

(1 no response)

Comments:

- a. More emphasis could have been put on this.
- b. I had to leave before this area was discussed.

6. If this workshop was offered again, I would recommend it to my colleagues.

SA 83%    A 17%    U           D           SD       

Responses: 15                      3                      0                      0                      0

Comments:

- a. I would recommend this workshop to every one in education.
- b. Definite background for using equipment and materials in a classroom.
- c. Excellent experience for any teacher. Now I really know how a child feels when his teacher gives directions and expects the child to successfully experience a process and complete a project.
- d. I feel all elementary teachers should have this type of exposure.
- e. Fantastic - should be required.

7. I am planning to conduct tool-material activities with my students during the upcoming school year.

SA 83%    A 6%    U 11%    D           SD       

Responses: 15                      1                      2                      0                      0

Comments:

- a. I have done this before, but now I can do new things with new enthusiasm.
- b. As a part of activities to motivate and maintain interest in methods course - am strongly "activity oriented" in teaching juniors - because they should be "activity oriented" in their teaching.

8. I would like to receive technical assistance during the school year:

SA 61%      A 33%      U 6%      D             SD       

Responses: 11      6      1      0      0

Comments:

- a. Especially consultants to help students too.
  - b. I plan on using several retired craftsmen and local people for resource personnel.
  - c. It would depend on whether I can talk my principal into allowing me to purchase and use some tools and materials.
  - d. Help is always appreciated.
  - e. I would like to keep in touch with Mr. J. and Ernie and come and see them when I need help.
  - f. If possible, yes.
  - g. Will probably "call on you" to help me over some rough spots (forgetting how to use a tool) or to request demonstration of some activity.
  - h. I feel now that the activities I have planned for the following year I can handle without assistance, but I can't be sure until I run into a problem.
9. In order to obtain technical assistance, I would be willing to attend a non-credit workshop, one evening per week at Trenton State College during the Spring semester.

SA 50%      A 17%      U 17%      D             SD 6%

Responses: 9      3      3      0      1

(2 no response)

Comments:

- a. I'd be willing to attend any workshop in regard to T4C.
- b. Would be very helpful.
- c. Very much in favor of this and will bring some friends along.
- d. Yes, I have attended a 3 credit course already.
- e. I may be taking graduate courses elsewhere, but if the night is right I'd be willing to try.
- f. The distance from my home is too great to travel to Trenton one day a week during school time.
- g. Cannot leave family but one evening per week and plan to take a credit course.
- h. Transportation and time would be the only reason for not doing this.
- i. This may not be possible if college commitments are too demanding.
- j. No- several free workshops without required attention during the whole year would be more helpful.

10. I would be willing to pay a fee (\$20 - \$30 ) to cover the costs of instruction and supplies associated with the non-credit workshop.

SA 50%    A 33%    U 11%    D           SD 6%

Responses: 9                    6                    2                    0                    1

Comments:

- a. S.D. - If one pays almost that much for one credit why should we pay it for no credit.
- b. Our district would pick up the tab.
- c. If I could come.
- d. It would be more inviting with credit.

11. Please evaluate the overall effectiveness of the following activities. Consider the effectiveness of the presentation and the practical use of the activity in your teaching situation. Circle the appropriate rating below each statement:

- a. Activities involving carding, spinning and weaving of wool.

Excellent 44%    Good 44%    Fair 11%    Poor       

Responses: 8                    8                    2                    0

Comments:

- a. Use made of media - of transparency or film loops for regulating - combining - integrating and using spindles.
  - b. Don't know if children could see any purpose to it.
  - c. Presentation could be good but practical use would not because of grade level.
  - d. I felt it would be too hard for my younger children.
  - e. Good for demonstration with youngsters but hard for each to do their own weaving.
  - f. Would have to have another activity going at same time - for those not interested.
- b. Knowledge of tools and procedures used in making wooden shoes and shingles.

Excellent 56%    Good 39%    Fair 6%    Poor       

Responses: 10                    7                    1                          

Comments:

- a. Don't feel I could use this material with fourth graders.
- b. Wish I had taken pictures.

- c. Interesting to me but I'm not really sure about it for the very young - enjoyed wooden shoes. (These activities older children would really enjoy.)
- d. Enjoyed this thoroughly.
- e. Excellent - Mr. Johnson makes it so.

c. Activities involving strength of materials used for construction.

Excellent 34%      Good 28%      Fair 28%      Poor 6%  
 Responses: 7                      5                      5                      1

Comments:

- a. Not enough time to do experiments to reinforce learning.
- b. I felt this was much too technical. Far from ideas to use with my children.
- c. There would only be use pertaining to a housing unit.
- d. My personal interest was greater in the other areas. Mr. Dresser was excellent in preparation and presentation.
- e. Limited because of grade level.
- f. I found this too long, uninteresting, but realize personal interest (or lack of it) was a factor.
- g. Very practical activity.

d. Visit to Dutch Windmill

Excellent 72%      Good 17%      Fair 11%      Poor \_\_\_\_\_  
 Responses: 13                      3                      2                      0

Comments:

- a. For me the windmill was very interesting but I don't think all the business about the construction etc. would be that interesting to a second grade class. I feel when the mill actually operates it will be much more interesting for children.
- b. I was really impressed.
- c. Worksheet questions took away from my enjoyment of the mill as I was afraid of not being able to answer the questions. I spent my time there noticing things not on the questionnaire.

e. "Projects in a nutshell" and magic squares

Excellent 83%      Good 17%      Fair \_\_\_\_\_      Poor \_\_\_\_\_  
 Responses: 15                      3                      0                      0

Comments:

- a. Nutshell the best. I liked the jig very much.
- b. Quite useful, especially for gifts and free time activities.

- c. So many good ideas for crafts, and all free!!  
 d. Can't wait to use them. Most useful of all

f. Cardboard carpentry

Excellent 67%    Good 33%    Fair           Poor       

Responses: 12                    6                    0                    0

Comments:

- a. This has unlimited potential.  
 b. Joe Scandariato is a great consultant!  
 c. I really enjoyed working with this.  
 d. Could use more people to instruct.  
 e. Material too cumbersome to have so many working at one time.  
 Lack of sabre saws make work difficult. Other machines used at Mr. J.'s ingenuity.

g. Food processing

Excellent 78%    Good 22%    Fair           Poor       

Responses: 14                    4                    0                    0

Comments:

- a. Truly enjoyed it.  
 b. A nice way to end the week.  
 c. Great fun  
 d. Poor choice of foods, but very well done.  
 e. Children would respond well.

h. Working with leather

Excellent 44%    Good 33%    Fair 6%    Poor 11%

Responses: 8                    6                    1                    2

(1 no response)

Comments:

- a. Kids like presents.  
 b. Not crazy about leathercrafts.  
 c. Also quite useful and fully explained.  
 d. Only small amount of leather was available.  
 e. This was a very poor introduction to leather tools and materials.  
 f. Have seen this many times before.

- i. Ropemaking, testing rope, rope projects.

Excellent 56%    Good 39%    Fair           Poor       

Responses: 10                      7                      0                      0  
(1 no response)

Comments:

- a. Again, presentation good, but practical application limited.
- b. This just doesn't especially interest me.
- c. Excellent - too old for my young ones, but I can see how older ones might benefit.
- d. So many good ideas!

- j. Ideas for safely arranging the elementary classroom to accomodate tools and materials.

Excellent 39%    Good 28%    Fair 17%    Poor       

Responses: 7                      5                      3                              
(3 no responses)

Comments:

- a. I don't think we spoke too much on this area.
- b. Need more.

## TOTAL TABULATION OF FINAL EVALUATION

Workshops A, B, C,  
Number of Participants Responding - 63

Directions: This final questionnaire will help us determine how well our workshop has succeeded. Please read each statement and then circle your response according to the following rating system:

SA Strongly Agree  
A Agree  
U Undecided  
D Disagree  
SD Strongly Disagree

We encourage you to write in your comments below any of the statements.

1. I feel that I have accomplished Objective 1. "be able to safely, and with a measure of skill, use common hand tools, machinery and materials appropriate for use with elementary school children."

SA 51%      A 47%      U 2%      D             SD       

Responses: 32                  30                  1                  0                  0

2. I feel that I have accomplished Objective 2. "develop a minimum of three curriculum experiences related to the elementary school curriculum which involve various tools, materials, machines and industrial processes. 'Develop' in this case, means making the plans, procedures and hardware necessary to actually implement the activities in the forthcoming school term with elementary children."

SA 67%      A 33%      U             D             SD       

Responses: 42                  21                  0                  0                  0

3. I feel that I have accomplished Objective 3. "participate in a field trip to a site (museum, factory, craft fair, restored historical site) which illustrates how man has used tools, materials and his ingenuity to meet such basic needs as food, clothing, shelter, transportation and communication. This field trip will be directly related to the workshop activities and will provide teachers with both information and inspiration useful for future teaching."

SA 71%    A 22%    U 5%    D 2%    SD     

Comments: 45        14        3        1        0

4. I feel that I have accomplished Objective 4. "Maintain a class notebook of activities involving tools and materials which can be used in the elementary classroom to promote learning in the content areas, e.g. math, social studies, music, language, arts, etc."

SA 62%    A 33%    U 2%    D 3%    SD     

Responses: 39        21        1        2        0

5. I feel that I have accomplished Objective 5. "Become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children."

SA 33%    A 51%    U 6%    D 3%    SD 2%

Responses: 21        32        4        2        1  
(3 abstain)

6. If this workshop was offered again, I would recommend it to my colleagues.

SA 88%    A 10%    U 2%    D         SD     

Responses: 56        6        1        0        0

7. I am planning to conduct tool-material activities with my students during the school year.

SA 75%    A 16%    U 9%    D         SD     

Responses: 47        10        6        0        0

8. I would like to receive technical assistance during the school year.

SA 51%    A 28%    U 21%    D         SD     

Responses: 32        18        13                        

9. In order to obtain technical assistance, I would be willing to attend a non-credit workshop, one evening per week at Trenton State College during the Spring semester.

SA 40%    A 25%    U 22%    D 6%    SD 3%

Responses: 25    16    14    4    2  
( 2 abstain)

10. I would be willing to pay a fee ( \$20 - \$30 ) to cover the costs of instruction and supplies associated with the non-credit workshop.

SA 30%    A 41%    U 24%    D         SD 5%

Responses: 19    26    15    0    3

11. Please evaluate the overall effectiveness of the following activities. Consider the effectiveness of the presentation and the practical use of the activity in your teaching situation. Circle the appropriate rating below each statement:

- a. Activities involving carding, spinning and weaving of wool.

Excellent 59%    Good 28%    Fair 10%    Poor     

Responses: 37    18    6    0  
( 2 abstain)

- b. Knowledge of tools and procedures used in making wooden shoes.

Excellent 47%    Good 41%    Fair 8%    Poor 2%

Responses: 30    26    5    1  
( 1 abstain)

- c. Activities involving strength of materials used for construction.

Excellent 37%    Good 43%    Fair 17%    Poor 3%

Responses: 23    27    11    2

- d. Visit to Dutch Windmill

Excellent 66%    Good 22%    Fair 11%    Poor     

Responses: 41    14    7    0  
(1 abstain)

## e. "Projects in a nutshell" and magic squares.

Excellent	<u>84%</u>	Good	<u>14%</u>	Fair	<u>    </u>	Poor	<u>    </u>
Responses:	<u>53</u>		<u>9</u>		<u>0</u>		<u>0</u>
	(1 abstain)						

## f. Cardboard carpentry

Excellent	<u>53%</u>	Good	<u>38%</u>	Fair	<u>5%</u>	Poor	<u>2%</u>
Responses:	<u>34</u>		<u>24</u>		<u>3</u>		<u>1</u>
	(1 abstain)						

## g. Food processing

Excellent	<u>38%</u>	Good	<u>35%</u>	Fair	<u>13%</u>	Poor	<u>14%</u>
Responses:	<u>24</u>		<u>22</u>		<u>8</u>		<u>9</u>

## h. Working with leather

Excellent	<u>62%</u>	Good	<u>28%</u>	Fair	<u>3%</u>	Poor	<u>3%</u>
Responses:	<u>39</u>		<u>18</u>		<u>2</u>		<u>2</u>
	(2 abstain)						

## i. Ropemaking, testing rope, rope projects.

Excellent	<u>68%</u>	Good	<u>27%</u>	Fair	<u>2%</u>	Poor	<u>    </u>
Responses:	<u>43</u>		<u>17</u>		<u>1</u>		<u>0</u>
	(2 abstain)						

## j. Ideas for safely arranging the elementary classroom to accommodate tools and materials.

Excellent	<u>38%</u>	Good	<u>40%</u>	Fair	<u>11%</u>	Poor	<u>2%</u>
Responses:	<u>24</u>		<u>25</u>		<u>7</u>		<u>1</u>
	(5 abstain)						

### Analysis of Product Evaluation

In regards to accomplishing the overall workshop objectives, the information received from the majority of workshop participants indicates that all objectives were satisfactorily accomplished. In this respect the following percentages were recorded:

- a. Objective #1 - 98% of the respondents felt that this objective had been accomplished.
- b. Objective #2 - 100% of the respondents felt that this objective had been accomplished.
- c. Objective #3 - 93% of the respondents felt that this objective had been accomplished.
- d. Objective #4 - 95% of the respondents felt that this objective had been accomplished.
- e. Objective #5 - 84% of the respondents felt that this objective had been accomplished.

The objective receiving the weakest rating was #5 which stated that "participants would become aware of efficient procedures for arranging their classroom to facilitate the proper and safe use of tools and materials by elementary school children." Of the 63 participants who evaluated this objective, four were undecided, two disagreed with the statement, while one person strongly disagreed with the statement. The remaining 56 participants felt that the objective had been accomplished. Although the majority agreed that the objective had been accomplished, a more unanimous agreement might have been reached if more workshop time had been devoted specifically to accomplishing this objective.

In conclusion, the opinions of the workshop participants lend support to the statement that workshop objectives were satisfactorily accomplished. In addition, it would appear that the objectives were accomplished in a congenial fashion, since 98% of the participants indicated they would recommend a similar workshop to their colleagues, if another one was offered.

The results of the final evaluation also pointed out the desire for additional technical assistance during the school year. The majority of workshop participants (91%) indicated that they were planning to conduct tool-material activities with their students during the school year. When asked if they would desire technical assistance with these activities, 79% of the participants made positive responses while 21% of the participants were undecided.

Exactly how this technical assistance would be provided was not covered in great detail. However, 65% of the participants indicated that they would be willing to attend a non-credit workshop one evening per week at Trenton State College. In addition, 71% of the participants indicated a willingness to pay a fee (\$20 - \$30) to cover the costs of instruction and supplies associated with a non-credit workshop. Perhaps there are additional methods of providing technical assistance during the school year and it would appear that efforts spent at developing a system of in-service instruction would be well received by many teachers.

## Conclusions

Based on the information obtained through the CIIP Evaluation Model, it would appear that all three workshops were successful in accomplishing the stated objectives. As noted under the product evaluation section of this report, the majority of participants indicated that all five objectives had been satisfactorily accomplished. Participants also seemed pleased with the methods and curriculum materials used during each of the workshops. When asked if they would recommend a similar workshop to their colleagues, 98% of the participants responded affirmatively.

As noted under the process evaluation section, an attempt was made to gather information concerning the progress of each workshop while it was still in session. The information obtained from the process evaluation indicated that a few minor changes were necessary and these changes were made in some cases, as soon as the next day of a particular workshop.

Obviously, one of the factors which influenced the overall success of each workshop was the time spent performing context and input evaluation. As indicated in the evaluation section, these two evaluation areas were completed before the beginning of the first workshop. Because of this, the Project Staff were able to accurately determine workshop objectives and then decide upon the most appropriate content and instructional strategies for accomplishing these objectives.

In summary, it would appear that a combination of factors such as planning, superior instruction, evaluation, dedicated staff and motivated participants contributed to the overall success of the three workshops.

## References

Stufflebeam, D. L.; Foley, W. J. ; Gephart, W. J. ; Guba, E. G. ; Hammond, A. L. ; Merriman, H. O. ; and Provus, M. M.  
Educational Evaluation and Decision Making. Columbus, Ohio: The Ohio State University Evaluation Center, 1970 (Unpublished book. The final version of this book is scheduled for publication in December, 1972)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE OFFICE OF EDUCATION WASHINGTON, D.C. 20202		BUDGET BUREAU NO. 51-RO752 APPROVAL EXPIRES: 10/31/71
PARTICIPANT DATA SUMMARY (Parts C, D, and F, Education Professions Development Act Title V, P.L. 89-329, as amended)		1. OE PROJECT NUMBER
2. NAME OF SPONSORING INSTITUTION OR AGENCY Trenton State College submitted by: Robert D. Weber telephone: 771 - 2536		3. STATE New Jersey
4. a. NUMBER OF PARTICIPANTS TO BE TRAINED IN THE PROJECT 63	b. NUMBER OF PARTICIPANTS COVERED BY THIS SUMMARY REPORT 63	

## DATA ON PARTICIPANTS

5. SEX		6. AGE					7. PARTICIPANTS BY WHETHER OR NOT THEY ARE VIETNAM ERA VETERANS	
		a. under 25	12	d. 35-39	4	g. 50-54	7	
a. Male	9	b. 25-29	19	e. 40-44	6	h. 55-59	1	a. Vietnam era veterans
b. Female	54	c. 30-34	8	f. 45-49	8	i. 60 and over	1	b. Not Vietnam era veterans
8. RACIAL OR ETHNIC BACKGROUND				9. PARTICIPANTS BY WHETHER THEIR INCOMES ARE, OR WERE BEFORE THEY ENROLLED IN THIS PROJECT, BELOW THE POVERTY LINE				
a. Negro or black	6	d. American Indian				e. Below poverty line		
b. Puerto Rican		e. Oriental				b. Not below poverty line		63
c. Mexican-American		f. Other than the above		57				

## 10. GEOGRAPHIC DISTRIBUTION OF PARTICIPANTS (by State of employment prior to this project)

a. Ala.		k. Ga.		u. Md.		ao. N. J.	55	eo. S. C.		ey. Wyo.	
b. Alaska		l. Hawaii		v. Mass.		af. N. M.		ep. S. D.		az. Canal Zone	
c. Ariz.		m. Idaho		w. Mich.		ag. N. Y.		aq. Tenn.		ba. Guam	
d. Ark.		n. Illinois		x. Minn.		ah. N. C.		ar. Texas		bb. Puerto Rico	
e. Cal.		o. Indiana		y. Miss.		ai. N. D.		as. Utah		bc. Virgin Is.	
f. Colo.		p. Iowa		z. Mo.		aj. Ohio		at. Vt.		bd. Pacific Trust Territories	
g. Conn.		q. Kansas		aa. Mont.		ak. Okla.		au. Va.		be. Overseas Dep. Schools	
h. Del.		r. Ky.		ab. Nebr.		al. Oreg.		av. Wash.			
i. D. C.		s. La.		ac. Nevada		am. Pa.	8	aw. W. Va.			
j. Fla.		t. Maine		ad. N. H.		an. R. I.		ax. Wisc.		bf. Foreign	

## 11. HIGHEST DEGREE EARNED

a. NONE	b. H. S. DIPLOMA	c. BACHELOR'S	d. MASTER'S	e. ED. D.	f. PH. D.
0	1	47	14	1	0

## 12. OCCUPATIONAL BACKGROUND

a. Currently employed (or within the past 5 years employed) in the field of education	63	d. Never previously employed in the field of education by whether they were	
b. Previously employed in the field of education, but not within the past 5 years		1. Employed in other professions requiring an academic degree	
c. Never previously employed in the field of education		2. Holding an academic degree but not working	
		3. Not holding an academic degree	

## 13. TOTAL YEARS OF TEACHING OR OTHER EMPLOYMENT IN THE FIELD OF EDUCATION

a. NONE	b. 1-4 YEARS	c. 5-9 YEARS	d. 10-14 YEARS	e. 15-19 YEARS	f. 20 OR MORE
	27	16	9	5	6

## 14. PRIMARY POSITION OR EMPLOYMENT STATUS AT PRESENT, OR IMMEDIATELY PRIOR TO PROJECT

a. IN A PRESCHOOL, ELEMENTARY OR SECONDARY SCHOOL OR SCHOOLS, OR LOCAL EDUCATION AGENCY				b. OTHERWISE EMPLOYED	
1. Teacher	59	5. Instructional media (incl. librarians)		1. Teacher trainer (in institution of higher education)	1
2. Administrator	1	6. Education aide or paraprofessional	1	2. In State educ. agency	
3. Supervisor		7. School volunteer	1	3. Non-education position	
4. Personnel specialist		8. Other education position		4. Student	

DATA ON SCHOOLS OF PARTICIPANTS

(NOTE: Distribute into each of the following items (15, 16, 17, 18, 19a, 19b, 19c, 19d, and 19e) only the number of participants who have been classified in item 14a, by the category in each item which best describes the nature of their schools. Exclude participants classified in item 14b.)

15. SCHOOL OR SYSTEM, BY CONTROL		16. GRADE LEVELS WITH WHICH THE PARTICIPANTS' ASSIGNMENTS USUALLY RELATE					
a. Public	58	a. Preschool	2	d. Jr. High (7-9)		g. Elem. & Sec.	
b. Nonpublic	5	b. K - Gr 3	24	e. Sr. High (10-12)		h. Post-Sec. Vocational	
		c. Elem (K-6)	36	f. Secondary (7-12)		i. Adult Education	1

17. AREA OF SERVICE OF SCHOOL OR SYSTEM WHERE EMPLOYED (predominant characteristic)

a. Rural or small town - general population		d. Urban - poverty area	
b. Rural or small town - poverty area		e. Suburban	
c. Urban - general population			

18. STUDENT BODY OF SCHOOL (or schools) IN TERMS OF THE PERCENT WHO COME FROM FAMILIES AT OR BELOW THE POVERTY LINE

a. 0%		d. 20-29%		g. 50-59%		j. 80-89%	
b. 1-9%		e. 30-39%		h. 60-69%		k. 90-100%	
c. 10-19%		f. 40-49%		i. 70-79%			

19. STUDENT BODY OF SCHOOL (or schools) IN TERMS OF THE PERCENT WHO COME FROM SPECIFIED MINORITY RACIAL OR ETHNIC BACKGROUNDS

A. NEGRO OR BLACK		B. PUERTO RICAN		C. MEXICAN-AMERICAN		D. AMERICAN INDIAN		E. ORIENTAL	
a. 0%		a. 0%		a. 0%		a. 0%		a. 0%	
b. 1-9%		b. 1-9%		b. 1-9%		b. 1-9%		b. 1-9%	
c. 10-19%		c. 10-19%		c. 10-19%		c. 10-19%		c. 10-19%	
d. 20-29%		d. 20-29%		d. 20-29%		d. 20-29%		d. 20-29%	
e. 30-39%		e. 30-39%		e. 30-39%		e. 30-39%		e. 30-39%	
f. 40-49%		f. 40-49%		f. 40-49%		f. 40-49%		f. 40-49%	
g. 50-59%		g. 50-59%		g. 50-59%		g. 50-59%		g. 50-59%	
h. 60-69%		h. 60-69%		h. 60-69%		h. 60-69%		h. 60-69%	
i. 70-79%		i. 70-79%		i. 70-79%		i. 70-79%		i. 70-79%	
j. 80-89%		j. 80-89%		j. 80-89%		j. 80-89%		j. 80-89%	
k. 90-100%		k. 90-100%		k. 90-100%		k. 90-100%		k. 90-100%	

AREA OF SPECIALIZATION (if employed in an institution of higher education)

20. PARTICIPANTS EMPLOYED IN INSTITUTIONS OF HIGHER EDUCATION - THOSE PARTICIPANTS DISTRIBUTED IN THE FIRST CATEGORY OF ITEM 14b, AS "TEACHER TRAINERS" - BY AREA OF SPECIALIZATION

a. ARTS OR SCIENCES	b. EDUCATION	c. OTHER
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TYPE OF POSITION FOR WHICH PARTICIPANTS ARE PREPARING

21. ALL PARTICIPANTS BY WHETHER THIS PROJECT IS PREPARING THEM TO ENGAGE IN A DIFFERENT TYPE OF POSITION

a. Preparing for same type of position as at present (as reported in item 14)	
b. Preparing for a different type of position (includes teachers who are preparing to teach a different subject)	
c. Participants in category b. above by type of position being prepared for	
1. Teacher (of a different subject)	6. Educational aide or paraprofessional
2. Administrator	7. School volunteer
3. Supervisor	8. Other educational position (in a school)
4. Pupil personnel specialist	9. Teacher trainer (in an institution of higher education)
5. Instructional media specialist (including librarians)	

Appendix A  
PARTICIPANT DATA

71

WORKSHOP "A"

<u>Student</u>	<u>School</u>
Anderson, Janet S. 31 Federal City Rd. Trenton, N. J. 08638	Second Grade Sharon School Robbinsville, N. J. 08601
Angelini, Rosa R. 13 Crestmont Ave. Trenton, N. J. 08618	Fifth Grade Anheil Elem. School Trenton, N. J. 08618
Berry, Elizabeth 360 Concord Ave. Trenton, N. J. 08618	Special Ed., 11 - 13 yrs. Anheil Middle School Trenton, N. J. 08638
Bonomo, Elizabeth S. 927 A Village Drive East North Brunswick, N. J. 08902	Second Grade Washington School New Brunswick, N. J. 08901
Brockman, Melanie S. 21 Moran Ave. Princeton, N. J. 08540	Ungraded Jordan Day School Princeton, N. J. 08540
Carson, Betsy 25 Nottingham Way Turnersville, N. J. 08012	Fourth Grade Bell School Blackwood, N. J. 08012
Cassese, Andrew 24 Concord Drive Livingston, N. J. 07039	Fourth, Fifth, Sixth Grade Fielding School Maplewood, N. J. 07040
Chianese, Irene 2339 W. Horse - Mercerville Rd. Trenton, N. J. 08619	Trainables Franklin School Trenton, N. J.
Fielding, Esther 75 Kingsley Rd. Kendall Park, N. J. 08824	Art, K - 6 Trenton Elem. Schools Trenton, N. J. 08618
Graja, Richard 1642 Lawrence Rd. Trenton, N. J. 08638	Hudson, Bennett, & Court St. Sch. Freehold, N., J. 07728 Principal
Lipsen, Norma 72 Sunset Drive New Hope, Pa. 18930	Learning Disabilities Teacher Delaware Valley Schools Frenchtown, N. J. 08825

Appendix A

72

Participant Data  
Workshop A

Neale, Kathleen  
Phoenix V l  
Beverly, N. J. 08010

Kindergarten  
Jaques School  
Edgewater Park, New Jersey 08010

O'Keefe, Kathryn  
5A Sunnybrook Rd.  
Stratford, N. J. 08084

4th, 5th gr. Percep. Impaired  
Erial School  
Sicklerville, N. J. 08081

Owens, Judith M.  
1504 Rustic Drive Apt. 7  
Ocean, N. J. 07712

Fifth Grade  
Bond Street School  
Asbury Park, N. J.

Pross, Linda R.  
827 Maple Ave.  
Piscataway, N. J. 08854

Neurologically Impaired (Primary)  
Columbus School  
Roosevelt Ave., Carteret, N. J. 07008

Sands, Ellyn  
47 D Evergreen Circle  
Mapleshade, N. J.

N. I.  
Yorkship Elem. School  
Camden, N. J. 08104

Sullivan, Patricia F.  
132 Snowden Lane  
Princeton, N. J. 08540

Second Grade  
Littlebrook School  
Princeton, N. J. 08540

Scull, Martha A.  
Kenilworth Lake Rd. Rt. 1  
Marlton, N. J. 08053

Third Grade  
Helen L. Beeler Elem.  
Marlton, N. J. 08053

Thompson, Hilary  
1350 Woodbourne Rd. G 109  
Levittown, Pa. 19056

First, Second, Third Grades  
Blessed Sacrament School  
Trenton, N. J.

Thompson, Rosemary  
82 Hillcrest Ave  
Trenton, N. J. 08618

Third Grade  
Trinity Cathedral  
Trenton, N. J.

Vigna, John X.  
611 Cedar La.  
Teaneck, N. J. 07666

Fourth Grade  
Thomas Jefferson  
Northvale, N. J. 07647

Vallacchi, Joan P.  
55 Spencer Rd.  
Basking Ridge, N. J. 07920

Orthopedically Handicapped  
Somerville Public Schools  
Somerville, N. J. 07920

Appendix A  
PARTICIPANT DATA

73

WORKSHOP "B"

<u>Student</u>	<u>School</u>
Brown, Dorothy Croker Raritan Ave. & Route 202 - 31 Flemington, N. J. 08822	Sixth Grade Glen Gardner Elem. School Glen Gardner, N. J. 08826
Brown, Thomas 708 Amboy Avenue Perth Amboy, N. J. 08861	Fourth Grade Moss School Metuchen, N. J. 08840
Byrne, Olga R. D. #2 Ringoes, N. J. 08551	Fourth Grade E. Amwell School Ringoes, N. J. 08551
Chieffalo, Elaine 186 Oaklyn Terrace Trenton, N. J. 08638	Second Grade Kuser Elem. School Trenton, N. J. 08629
Ernst, Helen 7D Chestnut St., R.D. 2 Toms River, N. J. 08753	Program Assistant K - 3 Spruce St. School Lakewood, N. J. 08701
Ettenger, Carol Silver Lake Rd. Newtown, Pa. 18940	Art K - 5 Council Rock School Dist. Richboro, Pa. 18910
Feeney, Michele A. 27 Red Cedar Dr. Levittown, Pa. 19055	Oliver Heckman School Langhorne, Pa. 19047 Primary Trainable M.R.
Felman, Ruth Jamestown Rd. Belle Mead, N. J. 08502	Kindergarten Burnt Hill Rd. School Skillman, N. J. 08558
Fleck, Margaret M. 27 Commodore Drive Bricktown, N. J. 08723	Orthopedically Handicapped Osbornville School Bricktown, N. J. 08723
Henderson, Anna 25 Henderson Ave. Princeton, N. J.	K - 1st Grade Princeton Methodist Church Nassau & Vandeventer Princeton, New Jersey

Appendix A  
Participant Data

74

Gatt, Judith A. 3517 Oakmont St. Philadelphia, Pa. 19136	Primary Emo. & Soc. Disturbed Bucks County Public Schools Bucks County, Pa.
Gerber, Fran 5 Wolfpack Rd. Mercerville, N. J. 08610	Sixth Grade Greenbrook School Kendall Park, N. J.
Grenwelge, Margaret 56 W. Upper Ferry Rd. W. Trenton, N. J. 08628	First Grade Parkway School Trenton, N. J. 08618
Hubbard, Kendall Box 90 R.D. 1 Frenchtown, N. J. 08825	Sixth Grade Holland Twp. School Milford, N. J. 08848
Millner, Syril H. 69 Letchworth Ave. Yardley, Pa. 19067	Fourth Grade Stokes Elem. Trenton, N. J. 08618
Plumer, Pearl 119 Hedgerow Dr. Cherry Hill, N. J. 08034	Kindergarten Neeta Elem. Medford Lakes, N. J. 08055
Rand, Isabel B. Peddie School Hightstown, N. J. 08520	Kindergarten Walter C. Black Sch. Hightstown, N. J. 08520
Rees, Alberta 762 Lower Feery Rd. Trenton, N. J. 08628	Special Ed. Jordan Day School Princeton, N. J.
Sweeney, Joseph 67 Chadwick Apts. Lindenwold, N. J. 08021	Special Ed. (S. M.) C. W. Lewis Sch. Blackwood, N. J. 08012
Spano, Susan 41 Western Ave. Apt. 7 Trenton, N. J.	Third Grade West Amwell School Lambertville, N. J.
Williams, Laura D. 8 Galston Dr. R.D. #4 Trenton, N. J. 08691	K - 4 Emo. Disturbed Red Oak School Lawrence, N. J.

Appendix A  
PARTICIPANT DATA

75

WORKSHOP "C"

<u>Student</u>	<u>School</u>
Anton, Lois 1100 Newportville Rd. #714 Croydon, Pa. 19020	Nongraded (1 & 2) Maple Shade School Croydon, Pa. 19020
Boulden, Betty 16 Fenimore Dr. Scotch Plains, N. J. 07076	Second Grade Woodland School Warren, N. J. 07060
Copeland, Margaret L. R.D. #2 Box 28 Titusville, N. J. 08560	4 year olds University - NOW Day Nrsry. Princeton, N. J. 08560
Doherty, Helen 484 Winding Brook Way Somerville, N. J. 08876	Helping Teacher K - 6 gr. Somerville Public School Somerville, N. J. 08876
Gilman, Margaret 70 Mitchell Ave. Piscataway, N. J. 08854	First Grade Knollwood School Piscataway, N. J. 08854
Hahn, Kathy 1431 New York Rd. Absecon, N. J. 08201	Special Ed. H.A. Marsh School Absecon, N. J. 08201
Kline, Toby 28 Princeton Arms East Cranbury, N. J. 08512	Reading Specialist - Teacher Melvin H. Kreps School Hightstown, N. J. 08520
Lapin, Jeannette 35 Lockwood Pl. Fair Haven, N. J. 08801	Special Ed. Swimming River School New Shrewsbury, N.J. 07724
McClain, Renee Hagerty's Apt. 3 Old Cranbury Rd. Cranbury, N. J.	Ocean Twp. H.S. Oakhurst, N. J.
McLaughlin, Marie 6 Mutillod La. Secaucus, N. J. 07094	Kindergarten Clarendon School Secaucus, N. J. 07094

Appendix A  
Participant Data

76

Workshop C

Page two

Moran, Ellen  
432 D. Hamilton St.  
Somerset, N. J. 08873

Second Grade  
Livingston School  
New Brunswick, N. J.

Mortimer, Louise  
15 Canterbury Dr.  
Pennsville, N. J. 08070

Special Ed.  
Valley Park Elem. School  
Pennsville, N. J. 08070

O'Halloran, Mary  
45 Fran Ave.  
Trenton, N. J. 08620

Fourth Grade  
Lambertville Public School  
Lambertville, N.J. 08530

Pace, Toby  
64 Buttonwood St.  
New Hope, Pa.

First Grade  
Delaware Twp. School  
Sergeantsville, N. J.

Poveromo, Deborah  
250 S. Logan Ave.  
Trenton, N. J. 08629

First Grade  
Stokes School  
Trenton, N. J. 08625

Ryan, Edward  
459 Uhler Ave.  
Burlington, N. J. 08016

Fifth Grade  
Pinewald School  
Burlington, N. J. 08016

Shurgalla, Joanne  
33 Walnut Dr.  
Burlington, N.J. 08016

Primary: 2nd & 3rd  
Chester Ave. School  
Delran, N. J. 08065

Stuart, Drew  
Princeton Arms No., Apt. 58  
Cranbury, N. J. 08512

Sixth Grade  
Constable School  
Kendall Park, N.J. 08824

Warner, Dr. Eleanore  
100 Greenleigh Court  
Merchantville, N. J.

Associate Professor  
J.P.E. Groups  
Trenton State College  
Trenton, N. J. 08625

Walton, Lawrence  
338 S. Blvd.  
Spring Lake, N. J. 07762

Special Ed.  
Wall Twshp. School Systems  
Wall Township, N. J.

TRENTON STATE COLLEGE  
DIVISION  
OF  
INDUSTRIAL EDUCATION AND TECHNOLOGY  
TRENTON, N.J. 08625

announces

Tuition Free Summer Workshops in

**using**

**TOOLS AND MATERIALS**

**with**

**ELEMENTARY SCHOOL CHILDREN**



THREE ONE WEEK SESSIONS

July 24 – July 28, 1972

July 31 – Aug. 4, 1972

Aug. 7 – Aug. 11, 1972

## WORKSHOP DETAILS

### PURPOSE

The major purpose of each workshop is to provide elementary education and special education teachers with the knowledge and skills necessary to conduct tool - material activities with children in a classroom environment. The workshops are based on the philosophy that tools, materials and appropriate activities enable children to explore, investigate, manipulate, and thus become active participants in their own learning.

### PROGRAM

Each one week workshop will be 30 hours in length and will consist of lectures, demonstrations, laboratory activities and field trips. A major portion of the workshop will be spent in laboratory sessions, learning about tools materials and appropriate curriculum activities for use with children in an elementary school setting.

Classes will meet daily, Monday thru Friday from 9:00 a.m. to 4:00 p.m., for each workshop. One hour daily will be reserved for lunch.

### ACADEMIC CREDIT

Upon successful completion of the one week workshop, each participant will be awarded one graduate credit under course IET 570.

The tuition fee of \$40.00 per graduate credit will be waived for all workshop participants.

### ELIGIBILITY

Each workshop will be limited to an enrollment of 20 participants. To be eligible, a prospective participant must have a Bachelor's degree from an accredited institution, plus at least one year successful teaching experience at the elementary school level. Priority will be given to special education and elementary education teachers who have had some formal training (e.g. College Courses, Technology For Children Workshops) with tools and materials.

### APPLICATION DEADLINE

All applications must be received not later than June 30, 1972. However, because of the limited enrollment, it is suggested that applications be completed well before the deadline.

### NOTIFICATION OF ADMISSION

All applicants will be notified regarding their admission as soon as their application has been received and evaluated.

### FACILITIES AND EQUIPMENT

Each workshop will be conducted in the Division of Industrial Education and Technology located in Armstrong Hall.

All materials used by participants in the workshop will be supplied free of charge.

(CUT ON DOTTED LINE)

**APPLICATION FORM**

I. Name:

(LAST)

(FIRST)

(MIDDLE)

II. Address:

(STREET AND NUMBER)

(TELEPHONE)

(CITY)

(STATE)

(ZIP CODE)

III. Employment:

(POSITION)

(SUBJECT)

(GRADE LEVEL)

(SCHOOL)

(CITY)

(STATE)

(ZIP CODE)

IV. Highest Degree  
Earned to Date:

(DEGREE)

(INSTITUTION)

(MAJOR SUBJECT)

V. Please indicate which workshop you prefer to attend. Use a rating of 1 to 3, 1 being most preferable and 3 being least preferable.

July 24 — July 28, 1972 — Workshop A

July 31 — Aug. 4, 1972 — Workshop B

Aug. 7 — Aug. 11, 1972 — Workshop C

Applicants who are accepted will be eligible to attend only one workshop. Attempts will be made to schedule participants in the workshop of his or her choice.

(Over)

VI. Check here \_\_\_\_\_ if you desire information about a dormitory room or off-campus housing.

VII. On this form or on a separate sheet of paper please provide the following information:

- A. Any formal training (e.g. college courses, in-service workshops) you have had in the use of tools and materials.
- B. A brief description of any activities involving tools and materials which you have conducted with your school children.
- C. Any facilities such as tools or work areas, which you presently have available in your classroom.

VIII. Please obtain the signatures listed below:

Signature of Applicant \_\_\_\_\_

Signature of School Superintendent or Principal \_\_\_\_\_

IX. Return all forms to:

Dr. Robert D. Weber  
Division of Industrial Education  
and Technology  
Trenton State College  
Trenton, N.J. 08625

MEMORANDUM

TO: \_\_\_\_\_ DATE: \_\_\_\_\_

FROM: Robert D. Weber

SUBJECT: Summer Workshop in Using Tools and Materials with Elementary  
School Children

It is my pleasure to inform you that you have been selected to attend our tuition-free summer workshop during the week checked below:

- July 24 - July 28, 1972 - Workshop A  
 July 31 - Aug. 4, 1972 - Workshop B  
 Aug. 7 - Aug. 11, 1972 - Workshop C

We hope that you find the dates satisfactory, even though you may not have been scheduled for the workshop of your preference. The task of selecting and scheduling participants for the workshop was difficult since we received many more applications than we could accommodate. If, for some reason, you cannot attend the workshop for which you have been scheduled, please contact me by phone so that we can fill your vacancy from our waiting list.

If you plan to attend the workshop, please read the enclosed information sheet and then complete and return the enclosed questionnaire immediately. Information obtained from the questionnaire will be used to help us plan and organize the workshop which you will attend. Under these circumstances, it is important that you complete and mail the questionnaire as soon as possible.

Thank you for your cooperation and I will be looking forward to meeting with you in a few weeks.

RDW: mk

College Phone (609) 771-2546  
Home Phone (609) 882-5049

DIVISION OF INDUSTRIAL EDUCATION AND TECHNOLOGY

Trenton State College  
Trenton, New Jersey

INFORMATION SHEET

1. Each workshop will begin promptly at 9:00 A.M., Monday morning.
2. Special arrangements have been made to conduct registration for graduate credit at each workshop.
3. The tuition fee of \$35.00 for one graduate credit under course IET 570 has been waived. However, if you wish to receive graduate credit from T.S.C. and have never completed an application for admission to graduate stude, you must fill out an application form. There is a \$10.00 fee for processing the application. If you wish to pay this fee by check, please make checks payable to "Trenton State College."
4. Travel directions to T.S.C. and Armstrong Hall are enclosed. Come early and report to room 44 in Armstrong Hall for a cup of coffee! Park in the student parking areas indicated on the enclosed map.
5. One hour daily (12:00 to 1:00P.M.) will be reserved for lunch. Facilities for lunch include the college cafeteria, snack bar and local restaurants. Feel free to bring your lunch and eat it in our classroom area.
6. We are planning to have an optional open lab one evening (Wednesday or Thursday, 6:30 - 9:00 P.M.) per workshop. Attendance at the evening session will not be required.
7. For your information, a workshop brochure plus workshop objectives are enclosed.
8. If you desire additional information, feel free to call Dr. Robert D. Weber or Mr. Conrad Johnson at Trenton State College.

Thank you for your interest and efforts in completing an application for admission to one of our summer workshops in Tools and Materials. As it turned out, the number of applicants wishing to attend the workshop was many more than we could possibly handle. In more specific terms, there were approximately 140 applications for the 60 vacancies which we had.

Reluctantly, I must inform you that your application was received but not included among those which were accepted. As a consolation, we would like to keep your application on file so that we can contact you personally when we offer additional workshops in the near future.

In connection with the workshops to be offered this summer, we are planning to produce a limited number of curriculum booklets describing the classroom activities associated with each workshop. Because of your interest in attending the workshop, we would like to send your school a copy of this booklet. If you are interested in obtaining one of these booklets for your school, please mail me a postcard requesting a copy.

Thanks again for expressing an interest in the workshops.

Sincerely

Robert D. Weber  
Assistant Professor  
Division of Industrial Ed. & Tech.

RDW:mk

## Input Evaluation Questionnaire

1. How did you first find out about the summer workshops?

Newspaper Article \_\_\_\_\_  
 Brochure \_\_\_\_\_  
 Radio Announcement \_\_\_\_\_  
 Building Principal \_\_\_\_\_  
 Superintendent \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Are you planning to register for the tuition-free graduate credit?

Yes \_\_\_\_\_ No \_\_\_\_\_

3. Would you be interested in attending the workshop if it were offered without graduate credit?

Yes \_\_\_\_\_ No \_\_\_\_\_  
 Undecided \_\_\_\_\_

4. Would you still be interested in attending this type of workshop if it were offered for two consecutive weeks instead of one?

Yes \_\_\_\_\_ No \_\_\_\_\_

5. Please rate your knowledge of the following topics, using the rating system below:

N = No Knowledge      S = Some      K = Knowledgeable

Jigs and fixtures used for mass production

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Interchangeability of parts and division of labor

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Appendix B - Input Evaluation Questionnaire

-2-

82

Cardboard carpentry

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Activities involving strength of materials used in the construction of such things as bridges and houses

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Food processing - making funnel cakes

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Food processing - making cheese

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Food processing - making bread

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Other types of food processing

Working with leather

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Ordering tools and supplies

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Arranging the classroom for activities involving tools and materials

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Working with fibers: Making rope and items of rope; relating math, science, geography and crafts to the above activity.

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

Working with fibers: Working with wool, cotton, flax; carding, spinning, weaving with simple and more involved looms

N \_\_\_\_\_ S \_\_\_\_\_ K \_\_\_\_\_

6. Please place an "x" next to the topics you would like to learn more about.

Jigs and fixtures used for mass production

\_\_\_\_\_

Interchangeability of parts and division of labor

\_\_\_\_\_

Cardboard carpentry

\_\_\_\_\_

Activities involving strength of materials used in construction of such things as bridges and houses

\_\_\_\_\_

Food processing - making funnel cakes

\_\_\_\_\_

Food processing - making cheese

\_\_\_\_\_

Food processing - making bread

\_\_\_\_\_

Other types of food processing

Working with leather  
\_\_\_\_\_

Ordering tools and supplies  
\_\_\_\_\_

Arranging the classroom for activities involving tools and materials.  
\_\_\_\_\_

Working with fibers: Making rope and items of rope; relating math, science, geography and crafts to the above activity.  
\_\_\_\_\_

Working with fibers: Working with wool, cotton, flax; carding, spinning and weaving with simple and more involved looms.  
\_\_\_\_\_

7. Please list below a special skill, activity or interest related to the workshop which you would like to know more about during the course of the workshop.

8. Comments