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**ABSTRACT** This report reviews major components of a workshop to develop consensus on a variety of issues and to increase participant awareness of innovative approaches to competency-based adult education (CBAE). The 200 workshop participants included state directors of adult education, other state staff, university personnel, local project directors, and federal education staff. The first section of the report presents workshop participants' responses to the charges. For example, in a call for a definition, CBAE is described as a performance-based process leading to demonstrated mastery of basic/life skills necessary for the individual to function proficiently in society. Other charges concern competency needs' state and federal legislation, etc. Section 2 reviews CBAE research and activities. The importance of the Adult Performance Level Study, which measured the degree of adults' competency, is emphasized. Several resulting studies to identify needs and/or competencies are examined. Also contained are reports on the provision and/or effect of CBAE instruction. Conclusions and recommendations are provided. Section 3 analyzes results of a Delphi survey of State Adult Education Directors and the U.S. Office of Education Division of Adult Education persons. The instrument focused on eleven issues. For example, issue 1 employs nine items to ascertain how CBAE relates to reaching least educated adults. Responses reflecting consensus are outlined. (CSS)

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ED162-147

# Report of the USOE Invitational Workshop on Adult Competency Education

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HEALTH, EDUCATION, AND WELFARE

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## Foreword

Since 1975, when the Adult Performance Level (APL) Project published recommendations for implementation of competency-based programs, the field of adult education has given such programs priority status for the investment of funds for research and demonstration. Many issues have developed in relation to these efforts. The need for a national forum for dealing with these concerns was identified by State Directors of Adult Education and other Adult Education leadership.

In February, 1978 a National Invitational Workshop on Adult Competency Education was convened to develop consensus on a variety of issues and questions, and to increase participant awareness of innovative approaches to competency-based adult education programs. The 200 participants included State Directors of Adult Education, other State staff, university personnel, local project directors and Federal education staff.

This report deals with the major purposes and components of the workshop. It is being distributed to the participants, to State offices of education and to the general adult education field.

Charles H. Buzzell  
*Acting Deputy Commissioner for  
Occupational and Adult Education*

September, 1978

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## **I. Charges And Responses**

A major objective of the National Invitational Workshop on Adult Competency Education which was held in Metairie, Louisiana, on February 22-24, 1978, was the in-depth consideration by participants in the Workshop of a number of critical issues or questions relating to competency-based adult education and the development of responses to these issues and questions. The following responses to the charges given the participants are the "products" of the workshop. Dr. Paul Taylor discusses the process that was utilized to identify these critical questions and explains the process of developing responses in more depth in the third part of this report. This section presents the actual workshop results.

### **Charge to the Groups:**

- Develop a functional definition of Competency-Based Adult Education.

### **Response:**

- Competency-Based Adult Education (CBAE) is a performance-based process leading to demonstrated mastery of basic and life skills necessary for the individual to function proficiently in society.

### **Charge to the Groups:**

- Identify how competency needs of adults should be determined.
- Identify strategies for assuring an impact on State planning.

### **Response:**

- Conduct a study of adult competency needs as identified by

individuals, agencies, employers, and local and State governing officials.

- Disseminate the study widely.
- Review and revise the results based upon responses to the study and apply these results to State planning mechanisms.
- Coordinate the planning efforts of State governmental agencies.
- Include in planning the following items:
  - (1) Channeling of resources to meet needs;
  - (2) Professional development and recognition;
  - (3) Specification of needs assessment techniques;
  - (4) Learner and program accountability;
  - (5) Program evaluation;
  - (6) Development of guidelines to assist in curriculum decision making;
  - (7) Development of consultative and communication systems to provide technical assistance;
  - (8) Accurate data collection and reporting systems.

**Charge to the Groups:**

- Determine critical elements of State and Federal legislation relating to Competency-Based Adult Education.

**Response:**

- Federal statute should provide broad authorization and funding for programs of basic education for adults through the secondary level.
- State and Federal guidelines should encourage a variety of instructional and curricular alternatives.
- State and Federal guidelines should facilitate implementation of CBAE.
- State and Federal reporting forms should accommodate the reporting of students enrolled on the basis of competency-based, as well as grade level measures.
- State laws and resolutions should address the following issues:
  - (1) Program accountability;
  - (2) Certifications for learning outcomes;
  - (3) LEA autonomy and flexibility;
  - (4) Measurement of outcomes.

**Charge to the Groups:**

- Identify ways in which Adult Education could benefit from Competency-Based Education laws or resolutions for elementary and secondary education.

**Response:**

- Adult education may benefit from elementary and secondary minimum competency laws in the following ways:
  - Fewer time restraints;
  - Fewer highly structured classes;
  - Greater acceptability of credit by examination, diplomas, certificates or other demonstrations of competency;
  - Increased opportunities for adult educators to provide leadership in defining and developing competency-based education;
  - Greater acceptance of the competency education approach and a competency-based high school diploma as an alternative;
  - Greater numbers of adult learners.
- Adult Education could be adversely affected by elementary and secondary minimum competency laws and resolutions in the following ways:
  - Less support of CBAE as a "reform" because of an emphasis on basic skills acquisition in isolation;
  - The use of adult education to "compensate" for gaps in humanistic or affective areas of education in elementary or secondary education programs.

**Charge to the Groups:**

- Describe coordination/facilitation roles for the USOE Division of Adult Education concerning CBAE.

The conferees elected to respond to this charge under five separate categories presented here as five areas of response. Further, since these responses include directives to the Division of Adult Education, the Division's comments are also included.

**Response #1**

Accomplishment of objectives.

- Encourage full-time adult education programs.
- Emphasize CBAE as a 309 priority.
- Coordinate efforts among all educational levels.

**Comments by the Division of Adult Education:**

- The Division of Adult Education recognizes that improved services can result from full-time programs. In developing regulations for the new amendments to the Adult Education Act, this principle will be integrated wherever feasible.
- National priorities for adult education published by the U.S. Commissioner of Education are developed through a broad analysis of Adult



Education needs. This analysis assures that Competency-based Adult Education will continue to be emphasized as a priority as long as the need exists.

- The Division will coordinate CBAE efforts through information services provided by Clearinghouse ADELL, through conference participation, multi-regional workshops, resource publications such as the ADELL 306/309 catalog, and state of the scene reports.

**Response #2:**

Policy recommendation and interpretation.

- Provide for national research and development.
- Discourage the use of national testing for adults.

**Comments by the Division of Adult Education:**

- Research and demonstration authorities contained in proposed amendments to the Adult Education Act may be utilized for Competency-Based Adult Education projects.
- The Division of Adult Education does not support a national competency test. Current regulations leave to each State the responsibility for education and the assessment of educational attainment.

**Response #3:**

Providing technical assistance and human resources.

- Maintain effective communications with the States.
- Maintain a USOE contact person for CBAE.
- Provide resources to State and regional levels.
- Provide technical assistance for evaluation, reporting, and research.

**Comments by the Division of Adult Education:**

- CBAE technical assistance will continue to be provided to States via telephone, written and on-site communications, and through the national information Clearinghouse ADELL, conference participation, sponsored workshops, liaison with other USOE assistance programs and selected publications on CBAE. In addition to a full-time CBAE facilitator on staff, additional Division staff-time can be applied to critical CBAE issues and resource needs.
- The Research, Development, Dissemination and Evaluation authority contained in the proposed amendments could provide additional resources to support CBAE.

**Response #4:**

**Dissemination of research, materials, and products.**

- Provide a national forum for issues.
- Share evaluations and project reports.

**Comments by the Division of Adult Education:**

- Useful dissemination of available research and other products is a critical concern for the total adult education program. To provide for the exchange of information and ideas, the Division of Adult Education plans to periodically sponsor dissemination activities such as the National Workshop. We will, of course, continue to cooperate with NAFCAE and AEA in their conference planning related to CBAE.
- Clearinghouse ADELL will also facilitate information exchanges and linkages on a continuing basis.

**Response #5:**

**Encourage professional development and activities.**

- Provide a forum for national issues in staff development.
- Provide some staff development opportunities.

**Comments by the Division of Adult Education:**

- The Division recognizes the importance of continuing staff development, especially as more full-time CBAE programs and professional positions become established. Subject to the availability of funds, the dissemination and evaluation authorities contained in the proposed Education Amendments of 1978 can enable the Office of Education to address national issues in staff development and to disseminate exemplary training models which promote effective CBAE programs.

## **II. A Review of Competency-Based Adult Education**

*by Joan Keller Fischer*

The purpose of this paper is to review the research and activities in Competency-Based Adult Education. Before delving into the research and activities, however, the term "Competency Based Education" as it is used in this paper must be defined. Beginning in the 60's the term became popular for many types of education. We had competency based reading instruction, teacher education, etc. More recently, CBE has acquired a more specific meaning and has become associated with acquisition of skills needed by the general public to survive socially and economically in our society.

### **COMPETENCY BASED EDUCATION**

If we accept competence as meaning the possession of required knowledge, skills and abilities, then CBE differs from past education in assumptions and approaches rather than goals. The emphasis is on applying and doing rather than on just demonstrating possession of knowledge. Yes, knowledge is involved, but it is integrated with skills and abilities so as to carry out a task.

Three characteristics are common to definitions of CBE.

- (1) Precise learning objectives and criteria for meeting objectives are known to and mutually determined by the teacher and the student. Objectives are stated in behavioral terms, and the objectives, criteria, means of assessment and alternative activities for developing the competency are public information. Activities are a means to an end rather than ends in themselves.
- (2) Accountability rests on the student's attainment of the objectives. The learner knows that she/he must demonstrate the competency and what is necessary for its demonstration.

- (3) The instruction is personalized. The learner has input in selecting objectives and activities and proceeds at his/her own pace.

A recent definition by Spady reflects an added element. He defines CBE as:

A data-based, adaptive, performance oriented set of integrated processes that facilitate, measure, record and certify within the complex of flexible time parameters the demonstration of known, explicitly stated and agreed upon learning outcomes that reflect *successful functioning in life roles*.

(Spady, January, 1977).

This definition applies to a total system; one which if we exclude the last five words, can be applied to any educational realm. This review of competency based adult education; however, emphasizes the concept implied in those last five words—successful functioning in life roles.

Rather than grapple with the intricate wording of the definition itself, we will concentrate on the six critical elements implied in the definition. These are:

- (1) *Outcomes: Competencies.* Competencies are indications of successful performance in life role activities. They are distinguished from capacities; which include the basic skills. Capacities are integrated and adopted (applied) to social tasks; they enable attainment of the competencies. Capacities alone do not insure competency. For a program to concentrate on CBE means major changes in curriculums, instruction and evaluation. Concentration on capacities implies less drastic changes, but outcomes that are more narrowly focused. Rather than the application of skills, the attainment of skills becomes the goal, not the means to the goal. Choice of goals is a major issue.
- (2) *Time:* Flexible and secondary to goals. There are no rigid time constraints for instruction and evaluation. This factor challenges the traditional organization of instruction around semesters and classes, and grading based on student comparisons.
- (3) *Instruction:* Again, learning opportunities are secondary to goals or outcomes. The opportunities must be known, agreed upon, readily available and closely tied to the goals. Instruction may consist of a range of activities and experiences rather than a prescribed set. Students can choose among those activities that are appropriate to them. These experiences extend beyond the school walls. The range of instruction is guided by the choice of goals.
- (4) *Measurement:* Criteria for performance is explicit, known and agreed upon, and criterion referenced. Recordkeeping is essential. Coordination of instruction and evaluation may be complex.
- (5) *Certification:* The verified demonstration of competencies consti-

tutes the exclusive criterion for student success, program placement, certification and graduation.

Attendance and time put in are irrelevant.

- (6) *Program Adaptability*: Mechanisms for collecting student performance data must be built into the system. This data is used not only for making decisions about individuals but about the program as well. Students' performance is considered a reflection of their ability and efforts as well as a reflection of the program itself.

Though Spady's discussion of CBE is in the context of adolescent secondary schooling, the definition is appropriate to adult education. In fact, it is in adult education, with its emphasis on responsiveness to adult life styles and flexibility, that we are more likely to see the actualization of CBE.

An underlying assumption of the view of CBE as expressed by Spady is that capabilities of high school graduates and of many adults are inadequate to function successfully as an adult. Simply stated there is a need. Additionally, the CBE viewpoint assumes that the competencies can be specified and that educational programs can respond to that need.

## REVIEW OF ADULT CBE RESEARCH AND ACTIVITIES

In reviewing the activities and research related to Competency Based Adult Education (CBAE) we will focus on four questions:

- (1) Do we know what the competencies are?
- (2) Do we have the means of measuring competencies?
- (3) Do we have the means of providing instruction?
- (4) What is the effect of CBAE instruction?

Although the review will be organized around questions one and four, information pertinent to all four questions will be provided.

### Do We Know What the Competencies Are?

A major step towards identifying the need and the competencies was taken with the Adult Performance Level (APL) Study, which also issued the most widely quoted figures regarding the degree of competency among adults. The APL study was funded by USOE to the University of Texas at Austin "to specify the functional competencies related to economic and educational success in today's society and to develop devices for assessing those competencies in the adult population of the United States." (APL, August, 1977)

Functional competency as presented in APL involves the integration of skills and knowledge as is depicted in the figure (1).

The field research conducted by the researchers became the basis for developing performance indicators designed to reflect life related competencies. These were then administered to a nationally representative

**Figure 1. The APL Concept of Functional Competency**

	Knowledge areas	Consumer economics	Community resources	Government law	Health	Occupational knowledge
<b>Skills</b>						
Communication skills						
Computation						
Problem solving						
Interpersonal relations						

sample of United States adults. The estimates of functional competency arrived at in this study indicated that approximately 20% of the population are not functionally competent, 34% are marginally competent and 46% are adequately proficient.

While the APL study is a good beginning in specifying necessary competencies, the research procedures and the competencies have been questioned. This questioning is healthy and can lead to improving outcome statements, Spady's first and focusing element of CBE. The issue, though, is can we specify, measure and subsequently mandate universal competencies common to adult life. There is much work to be done before this issue can be settled.

In response to APL several validation studies have been undertaken to determine the appropriateness of the APL curriculum objectives. Most of these activities have concentrated on appropriateness for specific populations, primarily, the under-educated adults our ABE programs are designed to serve. Some of the studies also involve teachers. By and large these studies relate to receptivity to functional competency instruction. California is, however, presently conducting a needs assessment which includes field research to specify additional competencies.

### **The New Jersey Study**

Possibly the most thorough study that has been completed was undertaken in New Jersey. Flaherty, under a 309 grant from the New Jersey State Department of Education, sought to document the reaction of that state's ABE students to competencies identified in the APL study. She was especially interested in ascertaining the self-perceived needs of students as a guide for developing curriculum. A secondary objective was to investigate the relationship of basic skills and functional competency.

To ascertain the felt needs of students, a structured interview schedule was designed, field tested and revised. Forty-two (42) statements were written to reflect the five (5) APL knowledge areas and the sixty-five (65) objectives. For each of the statements students were asked questions regarding their interest in learning the skill, how much they already know about it, and the necessity to learn it. One competency for each knowledge area was selected for more in-depth probing.

**Table 1. New Jersey Students**

Competency area	Mean percent want to learn	Mean percent necessary to learn
Occupational knowledge	71.3	40.1
Government and law	71.7	38.0
Consumer economics	60.2	36.8
Health	52.3	27.7
Community resources	47.8	23.5

The APL survey was read to each participant and the Reading Comprehension subtest of TABE, Level M was administered to explore the relationship between functional competency and basic skills. Interviews and tests were given to two hundred four (204) randomly selected ABE students.

The inclusion of questions regarding "what to learn" and "necessary to learn" is an interesting approach. Though it is difficult to distinguish between the two questions, since both are "felt" responses, in all instances the percentage of participants indicating they want to learn a specific competency is higher than the percentage thinking it is necessary to learn it (see Table 1). Overall, over 50% of those surveyed want to learn tasks associated with the first four (4) competency areas, though in not one case was the overall mean for perceived necessity over 50%. Across the five (5) knowledge areas the competencies students wanted to learn most were:

- (1) Where to get help if cheated ..... 85.8%
- (2) Fringe benefits offered by different employers ..... 83.3%
- (3) Filling out an income tax form ..... 82.8%
- (4) How the government spends your tax dollar ..... 81.3%
- (5) How laws are made ..... 81.3%
- (6) Where to get information (on anything) when you need it ..... 80.3%
- (7) Where to get help finding a job ..... 78.9%
- (8) How the court system works ..... 77.9%
- (9) What to do and say at a job interview ..... 77.5%
- (10) Rights of a person when arrested ..... 75.6%

Those in which they expressed the least interest were:

- (1) How to read medicine labels ..... 30.9%
- (2) Methods of birth control ..... 30.7%
- (3) How to read a bus or train schedule ..... 30.3%
- (4) Ordering from a restaurant menu ..... 24.5%
- (5) How to use a telephone directory ..... 19.6%

Noticable differences in responses were found among subgroups of participants.

In considering the students' self-perceived knowledge, 50% felt they knew little or nothing about twenty one (21) of the competencies. Based upon the findings, Flaherty strongly suggests that students want to learn those competencies about which they know the least.

When students were asked their reasons for enrolling in the program, at least 48 percent specifically mentioned the GED as related to their goal, e.g., further education or jobs. In addition, 4.9 percent and 17.6 percent respectively indicated they wanted further education or a job/better life without mentioning the certificate. Only 5.4 percent stated a reason relating to coping skills. The subjects or skills students most wanted to learn were:

24.5%—Math	4.0%—Spelling	22.5%—Job Skills
24.5%—Language	3.0%—Writing	1.5%—Life Skills
17.5%—English	23.0%—Reading	4.0%—Other

The following subjects were ranked as first, second or third choices from a prespecified list:

<i>Subject</i>	<i>Total of First three choices</i>
Reading	64.1%
Jobs and Working	53.4%
Math	52.5%
Writing	39.7%
Health	26.5%
Buying and Money	25.9%

With the exception of jobs and working, the basic skills were ranked higher than life skills. The job skills students wanted pertained to specific vocational skills rather than generalized skills included in APL.

To explore the relationships of student estimations of their abilities and ability as assessed by APL, an analysis of seventeen (17) overlapping interview and survey items was completed. Students were found to correctly estimate competency 55 percent of the time.

Based upon her analysis of findings the author concludes that:

- (1) ABE students in New Jersey are interested in learning competencies.
- (2) Nevertheless, their priority is for basic skills. She further recommends that basic skills should define the structure and sequence of instruction, but that that instruction should be inundated with practical applications.

#### **The Region X Study**

In Region X, Leslie Pickens and Nancy Sellers (1976) conducted a "User Needs Assessment Survey" to find out which Consumer Economics objectives were of greatest importance to ABE students. The results would determine which curriculum materials should be developed first. The survey included the states of Idaho, Washington, Oregon and Alaska.

A survey instrument which consisted of twenty (20) statements was designed. Respondents were asked to indicate how important it was for materials to be developed in each area. ABE students from the four (4) states were surveyed. Out of four hundred sixty (460) surveys distributed three hundred eighty two (382) were returned from the three (3)



**Table 2. Region X Survey Major Results**

	Overall student response*	Oregon	Washington	Idaho	Alaska
(1) How to use math in handling money. (APL #2)	76.0%	(134) 79.1%	(174) 73.0%	(73) 78.1%	(25) 88%
(2) How to make and use a budget. (APL #3)	74.6%	70.1%	77.0%	78.1%	56%
(3) How and where to get the best buy, that is, how to compare products and services. (APL #7)	63.5%	60.4%	64.4%	72.6%	52%
(4) How to get help when you get a bad product or service. (APL #19)	67.7%	67.2%	64.4%	78.1%	72%
(5) How to get the best place for your family to live. (APL #13)	72.9%	72.4%	69.0%	83.6%	56%
(6) How to get insurance for you and your family. (APL #18)	70.7%	73.9%	66.1%	75.3%	60%

\*Does not include Alaska.

contiguous states. Subsequently, twenty five (25) surveys were returned from Alaska. Table 2 lists the areas most frequently rated as most important. Responses for Alaska were similar, though not identical. Generally, a lower proportion of Alaskan students rated the objectives as very important. In all four (4) states the lowest ranked objective was, "How to order food and tip in a restaurant."

The results also indicated that variations in rated importance existed for states, sexes, certain ethnic groups, age, and income. Teachers rated the objectives somewhat differently than did students.

### The Pennsylvania Study

A statewide ABE Assessment Project was conducted by Pennsylvania State University (Lindsey, 1976) to collect data relevant to teacher and student receptivity to ABE. One thousand five hundred eighty (1,580) students and two hundred seventy seven (277) staff teachers from sixty (60) programs in the state were surveyed. The survey consisted of twenty (20) general behavior statements illustrating the reading, writing, computation, and problem-solving tasks associated with each APL knowledge area (see figure 2). Students were asked if they could do tasks like this now and if they would like instruction in these tasks in their ABE programs. Teachers were asked if they taught these types of competencies now and the importance of each for their students. Additional information

**Figure 2. APL Objective Behaviors**

**CONSUMER ECONOMICS:**

1. *Reading:* Being able to read catalogs, consumer guides, advertisements, and similar materials, in order to select goods and services that you need daily.
2. *Writing:* Being able to write a check, fill out a bank deposit slip, file an insurance claim, etc.
3. *Computation:* Being able to select the best buy in a food store by calculating cost per pound, cost per quart, etc. for different brands of the same product.
4. *Problem Solving:* Knowing what to do when you feel that a store has misrepresented a product through advertising, or that you have been overcharged, etc.

**OCCUPATIONAL KNOWLEDGE:**

5. *Reading:* Being able to read and understand regulations about your eligibility for union and company benefits, unemployment compensation, etc.
6. *Writing:* Being able to write a letter in response to a help-wanted ad, and being able to fill out a job application.
7. *Computation:* Being able to figure out your take-home pay when you have worked part of the time at your regular rate and part of time at an overtime rate.
8. *Problem Solving:* Being able to read help-wanted ads and select a job that matches your interests and abilities with job requirements.

**HEALTH:**

9. *Reading:* Being able to read a health insurance policy and understand how much you have to pay and how much the company will pay toward your hospital costs for a particular illness or injury.
10. *Writing:* Being able to fill out an application for a health insurance claim, or to write a note to your child's school to explain that he was absent because of illness.
11. *Computation:* Knowing how to figure out the total number of calories in a meal from a chart showing the calories contained in various foods.
12. *Problem Solving:* Being able to plan a family menu so that you can choose a variety of inexpensive foods that provide healthy well-balanced meals.

**COMMUNITY RESOURCES:**

13. *Reading:* Being able to use a road map, and to know how to read bus, train, and airline schedules.
14. *Writing:* Being able to write a letter to a hotel or motel before starting on a trip in order to reserve rooms for your family.
15. *Computation:* Being able to figure out how much additional money you would have to pay for gasoline next year if the state gasoline tax is increased by twenty-two percent.
16. *Problem Solving:* Being able to decide quickly which agencies or community service groups to call first in different emergency situations.

**GOVERNMENT AND LAW:**

17. *Reading:* Being able to read and understand the directions for filling out an individual income tax return.
18. *Writing:* Being able to write a letter to your congressman explaining your views or opinions on a current issue.
19. *Computation:* Being able to determine the number of U.S. Senators and Representatives from your state when you know the population of the state.
20. *Problem solving:* Being able to decide when your constitutional rights have been violated, and to know what to do about it.

Students were asked to indicate whether they could or could not "do tasks like this now," and whether, if an adult education course could teach them "to do this sort of task well," they would take such a course. Teachers were given the same list of statements and were asked to indicate whether they taught this type of competency specifically; whether (if they did not teach it as such) they provided training in the skill involved; and how important they considered this type of competency for their students.

**Table 3. Pennsylvania Study**

Instructional level	50 percent of the students said		50 percent of the teachers said	
	Can't do	Would take	Don't teach	Important
1-4	14	20	6	15
5-8	7	17	3	17
9-12	5	11	6	19

on the rating of competencies was gathered in a followup workshop. To ascertain the need for competency instruction, items from the Texas version of the APL Survey were administered to students at three (3) instructional levels. To conserve time for administration, four (4) parallel tests of equal difficulty were compiled and a simultaneous person-item sampling technique used.

Scores on the APL Survey indicated that over half of the ABE students fell into the APL I category. Not surprisingly, the proportion of students falling into the three (3) APL levels was associated with their instructional level. Hence, more students at the 1-4 instructional level were classified as APL I while fewer at the higher instructional levels were similarly classified.

The responses to the behavior statements were perceptual and should therefore be viewed as indications of receptivity. Table III summarizes student and teacher responses. Interestingly, the author noted that there appeared to be little relationship between student self-assessment of ability and actual performance on related test items.

Rankings of knowledge areas based on student interest, teacher estimations of importance, and workshop participant priorities differed slightly. Rankings according to instructional level also varied (see Table 4). Yet, there was general agreement that Occupational Knowledge was

**Table 4. Comparative Rankings of APL Knowledge Areas for Each ABE Grade Level by Student Interest, Teachers' Estimates of Importance, and Workshop Participants' Priorities for Curriculum Development**

APL knowledge area	Ranking of student interest (Survey data)			Teachers' ranking of importance (Survey data)			Priority for curriculum development (Workshop data)		
	Instructional level			Instructional level			Instructional level		
	1-4	5-8	9-12	1-4	5-8	9-12	1-4	5-8	9-12
Occupational knowledge	1	2	3	1	1	1	1	1	1
Consumer economics	2	5	1	2	2	2	2	2	2
Health	5	3	4	5	3	3	3	3	3
Community resources	3	4	5	4	5	4	4	4	4
Government and law	4	1	2	3	4	5	5	5	5

**Table 5. Ranking of APL Knowledge Areas**

	Administrators	Teachers	Students
Consumer economics -----	1	2	2
Community resources -----	5	5	5
Government and law -----	2	3	3
Health -----	4	1*	1*
Occupational knowledge -----	3	4	4

\*Rated most important far more frequently than the Number 2 listed priority.

of greatest importance with Consumer Economics regarded as next in importance.

Survey information regarding student and program goals is relevant in interpreting the potential use of APL. The two (2) most highly ranked student goals, according to counselors, were:

- (1) Preparation for the High School Equivalency Exam.
- (2) Increased self-confidence.

Increased ability to cope with adult life roles and problems was ranked as third. The preference for instruction leading to a secondary certificate was further supported by supervisor and student responses.

#### The Southeast

In the Southeast, administrators, teachers and students were surveyed to measure APL processes and their effectiveness. Only programs incorporating APL were surveyed. A different instrument was used to survey each of the groups. Though most of the responses came from Alabama programs, one program each from Florida, Georgia, Kentucky, Mississippi, South Carolina and Tennessee was included. In all, twenty six (26) administrators, seventy five (75) teachers and five hundred (500) students were surveyed. Generally, the responses indicated a positive reaction to APL instruction.

Each of the three (3) groups was asked to rank the five (5) APL knowledge areas according to importance. Rankings are listed in Table 5. Across the three (3) groups there was unanimous agreement between teachers and students in their rankings. Administrators agreed only to the extent that Community Resources was of least importance. Interestingly, Health was ranked most important by 41% of the teachers and 77% of the students. It is difficult to project reasons for this response.

#### Connecticut

Win Adkins' Reconnaissance Survey Method provides a different approach to identifying coping behaviors needed by adults. This approach incorporates a counseling interview needs assessment and results in

qualitative information. Adkins' differentiates his approach from APL in that he places a greater emphasis on the psychological and social problems of living rather than on literacy and acquisition of knowledge. Recently, Adkins conducted a study for the Connecticut State Department of Education to determine the life problems and concerns of the educationally disadvantaged in the Valley Regional ABE program area. Interviews with two hundred fifty eight (258) people from nine (9) groups of people considered to be in greatest need of ABE instruction were conducted.

Statements from those interviewed were analyzed and categorized by a research team. The results of this analysis are much too extensive to be reported adequately in this paper. Seven (7) major categories of problems were specified. For each category numerous problems and concerns and generalized problem statements are listed. Each is followed by several substatements. The seven (7) major problem clusters were:

#### **ADKINS CLUSTERS**

- Occupational and Career Problems.
- Problems in Living in Community.
- Problems of Personal Growth and Development.
- Problems in Relating to Others.
- Medical and Health Problems.
- Marriage and Family Problems.
- Problems of Being a Parent.

Clearly, similarity between these clusters and the APL knowledge and skill areas exists. Also, a quick perusal of the problem statements suggests that, although Adkins sought to identify psychological and social problems, many of the problems related to knowledge and skills, e.g., vocabulary and specific types of information. Other statements reflected complaints regarding current practices and life situations.

An in-depth examination comparing the problem statements and the APL objectives and tasks would be interesting. While specific similarities would be discovered, it is also likely that other necessary competencies would be suggested.

#### **Studies in Progress**

*Alaska:* In Alaska a needs assessment of Adult Basic and Literacy Program participants is underway. A survey consisting of eighty one (81) statements interpolated from the sixty five (65) APL objectives has been developed. Competencies specific to Alaskan communities are also to be identified.

*California:* An extensive project to identify functional competencies and to assess the needs of adults is currently underway. The study is being conducted by NOMOS Institute under a grant from the California

Division of Adult and Community Education. The proposed plan includes the specification of necessary competencies. Though the APL results will be considered, the research design suggests that the list of California competencies will vary, possibly to a great extent, from those specified by APL. Performance indicators for each of the competencies are to be written. A stratified random sampling of California's adult population will then be undertaken.

Prior to acquiring the grant for the statewide needs assessment, NOMOS interviewed representatives of forty seven (47) federal, state and local government agencies. Some of the results of that study, though limited to agencies, are pertinent to our discussion of necessary competencies. In response to a question probing the agency's concerns about functional competencies, the following types of comments were elicited:

	<i>Stated by representatives</i>
(1) The public has little or no competency problems -----	12
(2) The public needs <i>communication skills/ability to ask questions/articulate needs</i> -----	24
(3) The public needs basic skills in receiving information:	
(a) Basic <i>reading skills</i> -----	16
(b) Basic <i>computational skills</i> -----	16
(c) Special competencies (e.g., map reading) -----	24
(d) Special skills for <i>locating resources and information</i> -----	12
(4) The public needs to change attitudes and behaviors. -----	22
(5) The public needs English language skills -----	11
(6) The public needs <i>consumer skills</i> -----	18
(7) The public needs <i>interpersonal skills</i> -----	12
(8) The public needs realistic knowledge of societal expectations/ legal requirements -----	24
(9) The public needs salable skills/wherewithal to earn money without resort to crime -----	10

Many of the specific responses reflected competencies related to that particular agency. The most frequently mentioned competencies were those which enable people to receive information. The authors further state that, "although these concerns entail a specific content, they all view the development of positive attitudes as the key . . ." The following specific skills and attitudes were mentioned:

#### **SPECIFIC LITERACY SKILLS**

- ability to measure
- ability to interpret allocation plans
- to understand transit maps, schedules, transfer requirements
- to read technical pesticide safety warnings
- to use a telephone book
- to find the right bureau within a beurocracy
- for aged, to secure their discounts and entitlements
- to ask the right question of an agency
- to identify key issues and eliminate extraneous information

## ATTITUDES

- use of mass transit
- knowledge of environmental hazards
- broaden women's employment expectations
- work, e.g., punctuality
- preventive rather than crisis-oriented health care
- good (non-criminal) moral character.
- land use, camping safety, conservation principles
- knowledge of tax laws and IRS record-keeping requirements
- consumer rights and perogatives
- consumer attitude of "something for nothing" and bargains
- interpersonal skills related to job application, interview, courtesy, presentation of self.
- English language skills
- salable skills

As can be seen many comments indicate competencies consistent with the APL skills and knowledge areas. Some of the specific abilities, however, are not emphasized in the APL objectives and tasks. Agency representatives were asked to comment on the APL objectives (the exact list used was not indicated). While there was qualified approval, the people interviewed indicated that some tasks were inappropriate, unrealistic, or overly detailed. Some representatives thought that important competencies were overlooked or were emphasized too much or too little. Some of those were:

## COMMENTS ON THE APL OBJECTIVES

- information on specific environmental hazards
- metric conversions
- basic fire safety
- most common forms of consumer fraud
- consumer legal responsibility
- alcoholism
- federal job application form
- units on interpersonal skills
- assertiveness, especially towards bureaucracy
- places too much emphasis on reading skills, not enough on listening
- not all people need all the competencies; some are too specialized and technical
- the criteria on occupational information is geared towards the top 75% of the occupational status hierarchy

Though this information is derived from a very confined source, it represents the reaction of a different group than the ABE students included in the previous studies reviewed.

## WHAT IS THE EFFECT OF CBAE INSTRUCTION?

A few reports which provide information on the provision and/or effect of instruction related to life competencies are available. As in the previous section, these will be reported according to the area in which they exist.

### Louisiana

Under a grant from the Louisiana Bureau of Adult and Community Education, a comparative study of traditional and APL instruction was conducted (Dauzat, 1977). Though ten (10) ABE program sites were initially included in the study, data was provided by six (6). The final sample included one hundred thirty six (136) ABE students. In each site two (2) groups of students were designated. The control group received the standard ABE program of basic skills instruction while the experimental group received life skills instruction based on the APL objectives. Both groups were given the California Achievement Test and the APL Survey before and after instruction. Summaries of each site's experiences suggest that variations in APL instructional content, procedures, time, and students existed from site to site. It appears that basic skills were systematically taught in addition to life skills in many, if not all, of the experimental groups.

The pre and posttest scores for the two (2) groups on the CAT and APL Measures were:

	CAT		APL	
	Pre	Post	Pre	Post
Control .....	6.4	7.8	21.35	25.65
Experimental .....	5.2	7.6	18.40	26.40

The changes in the test scores for the control group were 1.3 on the CAT, 4.2 on APL. For the experimental group the changes were 2.4 and 8. Table 6 provides information for each site.

To determine if changes in scores for the two (2) groups differed significantly, a t-test was used. Data from all participants were combined because the sample sizes for each site were too small to compute t-tests for each. The differences in score changes were significant at the .05 level on both the CAT and the APL. Scores of the experimental group increased significantly more than did those for the control group on both the basic skills and life skills measures. An analysis of variance further supported this finding regarding changes in scores for the two (2) groups.

Regression analysis revealed no simple linear relationship between change in test score and instructional time. This possible relationship was further investigated by dividing the change in test scores by the number of hours studied. A t-test analysis revealed that the CAT increase per hour studied differed significantly for the two (2) groups at the .05 level. No significant difference existed for the APL change. Based on these



Table 6. Louisiana Study

Site	Group N	Age	Grade completed	Pre CAT	Post CAT	Pre APL	Post APL	Hours of attendance	Weeks in operation
1	Control 5	24.6	9.0	5.8	7.7	21.6	22.4	138.4	26
	Experimental 4	34.5	7.75	6.45	10.5	21.0	23.2	320.75	26
2	Control 6	38.2	5.83	6.78	7.87	25.8	27.2	138.7	24
	Experimental 5	40	6.0	5.74	7.7	20.2	28.0	80.6	24
3	Control 4	22.75	9.0	5.15	5.6	11.5	17.5	131	20
	Experimental 4	36.25	9.2	5.53	6.3	21.7	28.0	168.5	20
4	Control 6	17.00	8.33	5.43	6.55	18.8	22.00	183	25
	Experimental 66	20.53	8.5	4.69	7.22	15.28	24.2	234	25
5	Control 3	32	10.0	7.13	9.06	27.33	25.33	169.7	39
	Experimental 4	26.75	9.25	7.22	8.3	21.75	27.25	66.5	39
6	Control 10	35.1	8.0	7.4	9.1	22.2	31.9	133.2	27
	Experimental 19	33.32	6.7	6.41	8.78	26.6	33.6	99.05	27

C— 34  
E— 102

136

results it was concluded that the experimental group out-performed the control group on the basic skills test but not on the coping skills test.

Because of the many uncontrolled factors, this finding must be interpreted cautiously. If accurate and borne out in subsequent research, the implication is that life skills instruction may result in greater improvement in basic skills than does general, sequential basic skills instruction. Moreover, it suggests that both types of instruction result in proportionately the same gains on a test of coping skills considering the amount of instruction provided. One possible explanation for this finding is that the APL Survey is heavily saturated with basic skills.

One last finding from this study is pertinent. Of the total number of two hundred twenty six (226) enrolled students, seventy three (73) left the program, resulting in an overall retention rate of 68 percent. The retention rate for the control group was 63 percent while that for the experimental group was 71 percent. It appears, then, that not only did the coping skills instruction result in greater test score changes, it also tended to hold the students in the program.

#### New England

In New England, a life skills pilot project involving six (6) learning centers in three (3) states and the Adult Education Resource Center of Worcester State College was implemented in 1976. The project was supported by the adult education offices of the state education agencies in Massachusetts, New Hampshire and Maine. Though the project activities were primarily directed toward providing instruction, pre and post APL test data were collected.

Table 7. Average Changes in Pre and Post Scores on the ACT/APL Survey

	Peabody (Spring)	Saco (Spring)	Somerville (Spring)	Worcester (Spring)
Number of students	5	7	6	16
Occupational knowledge	1.2**	0.5**	0.2	0.0
Consumer economics	0.8	1.9†	0.8**	0.5†
Health	0.8	1.7†	1.3**	1.0†
Community resources	0.8	0.7	-0.3	0.4†
Government and law	1.4**	1.7†	-0.3	0.9†
Total	4.4**	6.5†	2.3	3.0†

†p < .01.

\*p < .05.

\*\*p < .10.

The initial design called for two (2) APL groups to be organized in each site, one in the fall, another in the spring. A minimum of one hundred and twenty (120) hours of instruction was to be provided to fifteen (15) people in each group. Variations in program operations, however, prevented the formation of two (2) groups per program. The instructional periods varied for each group, lasting from eighty (80) to one hundred and twenty (120) hours.

For groups beginning instruction in the fall, the Texas version of the APL Survey was used. The ACT/APL Survey was adopted for groups beginning after January 1, 1977. Test data were supplemented with student and staff interviews and comments derived from the staffs in monthly meetings.

Because time, instruction and students varied from site to site, data for each site were analyzed separately. This resulted in small sample sizes. The nonparametric sign test and a significance level of .10 were therefore used.

Analysis of results for nine (9) groups—four (4) in the fall, four (4) in the spring, one year long—indicated that for seven (7) groups total changes in total APL scores were significant at the .01 level. For another group, composed of ESL students, the change was significant at the .10 level. Score changes in individual content areas were significantly different on at least the .10 level in thirty two (32) out of a possible forty five (45) instances. Tables 7 and 8 provide additional statistics.

To ascertain whether there was a relationship between topics taught and test score changes, a contingency table was composed from questionnaire and test data. An  $X^2$  was computed and found to be significant at the .05 level. The contingency coefficient, similar in concept to a correlation coefficient, was .38, with the highest possible coefficient for  $2 \times 2$  table being .71. It appears that score increases were related to instruction provided.

Student and teacher reactions to instruction were positive. Interestingly, initial interviews with students indicated that they wanted to improve

**Table 8. Average Differences in Pre and Post APL Survey Scores With the Texas Survey**

	Manchester (All year)	Peabody (Fall)	Saco (Fall)	Somerville (Fall)	Worcester (Fall)
Number of students	8	8	14	10	10
Occupational knowledge	2.6†	2.6*	0.0	2.5†	2.1†
Consumer economics	2.0**	3.8†	2.2*	2.1†	3.3†
Health	1.9**	2.3*	1.2†	1.6**	1.5**
Community resources	1.3	1.5	0.8**	1.8†	1.1**
Government and law	0.6	2.6†	0.8**	1.2**	1.1
Total	8.5†	12.5†	5.0†	9.2†	8.7†

†p < .01.

\*p < .05.

\*\*p < .10.

their basic skills. Post-instruction interviews revealed that the students' expectations had been met. The integration of basic and coping skills instruction was, however, a major concern of the teachers.

The subjective information collected provided more moving evidence that instruction was really helping students. Moreover, the experience changed the perspectives of staffs and participants toward functional instruction. When given the opportunity to receive information or assistance in this areas, students entered the program seeking life skills instruction. More often, existing students wanted to add life skills to their program to varying extents. Students sought out program personnel to gain help with specific problems. Other teachers began using the life skills materials and the programs planned for greater provision of life skills instruction.

### Illinois

Project Career Success (Wallace, 1976; Marinelli and Painter, 1977) has operated an APL pilot program for at least two (2) years. In their first year of operation, the staff saw the positive aspect of that instruction as including increased student self-confidence, enthusiasm and high attendance. The lack of a secondary certificate based on APL instruction was the major drawback. In the second year of operation this problem was partially solved by awarding six (6) high school credits for full participation in and satisfactory completion of APL work. Evaluation of successful completion was determined by a set of tasks. Eleven (11) students were judged to have satisfied these requirements.

An interesting outcome occurred, however, when the project took part in norming the ACT/APL Survey. Nine (9) students who had completed the task assignment successfully took the APL Survey; three (3) were

rated as average, six (6) as below average. These results caused the staff to question the survey as a good measure of what was learned. Although they also considered that the program may have required a different level of proficiency, there was still a preference for the performance indicators. It was thought that these indicators were a better reflection of the subtlety and complexity of real situations.

### New York State

The forerunner and model for programs issuing a high school diploma based partially on evidence of life skills competencies is the New York High School Diploma Program operated by the Regional Learning Service of Central New York (Bailey, Macy and Vickers, 1973; Nickse, 1975, 1976, 1977). The unique characteristic of this program is that it is a performance assessment system; no instruction is provided. To acquire the diploma, participants must demonstrate proficiency in sixty four (64) generalized competencies and in one (1) of three (3) individualized competencies. The former includes skills which are considered necessary to further learning, employment and daily life functioning. Demonstration of each competency is incorporated into five (5) task assignments such as selecting an appropriate apartment. In this way the assessment tasks are as reflective of things people really do as adults. After successfully completing these tasks participants may choose to demonstrate competency in Occupational/Vocational Skills, Advanced Academic or College Readiness skills or Specialized Skills (e.g., music, art, community service). When there are indications that a participant needs further learning, local resources where this learning may be obtained are identified.

As of late 1976 one hundred fifty-four (154) people had received a high school diploma via this process. A follow-up report on fifty (50) of the graduates indicated that they reacted favorably to the assessment process. 92 percent said the tasks they had to complete "were the same as or closely related to normal adult activities". Although the project provided no direct instruction, the graduates identified many types of facts and skills they had learned as a result of participating. 88 percent said they had used or will soon use some of the new skills.

A one (1) year followup of twenty-eight (28) people provided further evidence that the program was effective. Briefly, 62 percent felt the acquisition of the diploma was rewarded on the job, 100 percent expressed personal satisfaction at having earned it, and 77 percent to 96 percent supported various statements regarding their increased ability to handle life situations.

One additional fact is relevant. Of the three hundred and eight (308) people who had been enrolled as of late 1976, only 19.5 percent had dropped out after completing the diagnostic process.

## Texas

The APL project, using the New York program as a model, has also designed a competency-based high school diploma program. Texas programs, however, are more closely associated with ABE learning centers, where enrollees can acquire instruction in the life competencies they are lacking. These competencies are assessed by the APL Survey as well as performance indicators devised by the staff.

Presently, the program is operating in nine (9) Texas sites. As of June, 1977 three hundred ninety three (393) people had graduated. During 1975-1976 only 20 percent of the participants had left the program before completion. For 1976-1977 the figure was 23 percent. A questionnaire completed by fifty seven (57) graduates\* indicated that:

- 88 percent felt more confident.
- 37 percent have pursued further education for credit and non credit.
- 16 percent (nine (9) people) thought they would not have been employed without the diploma. Since only fourteen (14) had changed jobs, this suggests that immediate job advancement was not an urgent reason for enrolling.
- Nine (9) people said their diploma had been questioned by a college admissions officer or employer. Though it is not clear, it appears that this questioning was to explain the degree.
- Of sixteen (16) people who indicated they had enrolled in college courses, only one (1) did not feel adequately prepared.
- Thirty nine (39) people had recommended the program to six (6) or more people; only four (4) had not recommended it to others.
- 75 percent said the life skills had been useful to them. Many listed specific tasks.

Overall, the responses indicated satisfaction with the program. The preliminary evidence suggests that the diploma is relevant and useful for employment and further education. Certainly, the data support a positive effect on a person's self-perception.

## CONCLUSIONS AND RECOMMENDATIONS

### (1) Do We Know What the Competencies Are:

Yes, to some extent we do. The APL research has provided a starting point and is now extremely useful to programs implementing life coping skills instruction. The result of studies in New Jersey, Region X, Pennsylvania and the Southeast, as well as the experiences in New

\*Data supplied by Elaine Shelton of the APL project.

England, Louisiana, Illinois and other programs, support the applicability of many of the objectives to students currently enrolled in ABE programs. Though tasks reflective of specific competencies are often rated of little importance, perceptions of importance vary with specific populations. "Ordering food in a restaurant" was one (1) objective that most often wound up at or near the bottom of the list.

The result of the various surveys and the explanations of functional competency tend to support the concept as defined by APL and illustrated in their now famous matrix. Here, again, ratings regarding the knowledge area of greatest importance vary depending on those asked to do the rating. Occupational Knowledge and Consumer Economics tend to be considered most important by many of those surveyed. Community Resources most often is rated lowest. However, this may be due to the specific objectives or tasks included by APL in that knowledge area. Solving problems or accomplishing real life goals frequently requires identifying, selecting and using resources of many types. The APL modules for providing functional competency instruction incorporate this step into almost all of the forty one (41) objectives. Community Resources, then, crosses every knowledge area. Perhaps this area should be considered a third dimension of the matrix.

It must again be emphasized that the studies completed provide an indication of receptivity or perceived need rather than actual need, and that the studies do not represent the general adult population. Moreover, the results indicate reactions to statements based on APL. These reactions are sometimes to statements representing specific tasks or a portion of a competency—rather than the integration of tasks that make up competencies. Knowledge of people's receptivity is vital to implementing successful instruction. The research does not, however, verify that the competencies specified by APL are the most essential to adult life or the only relevant competencies. More research is needed. The competencies that result from the California research and from studies using the Adkins procedure will be extremely valuable. Completion of several studies on many populations which provide lists of competencies will enable us to synthesize commonalities and perhaps lead to an improved identification of those most necessary. Students and program personnel can then use more comprehensive lists to ascertain which are relevant in particular settings.

## RECOMMENDATIONS

(1) More research needs to be conducted to determine competencies necessary to functioning in modern society. (Since the societies in which people function vary, it is anticipated that necessary competencies will vary according to, say, age, income or location. These factors change as we move through life; therefore, it is to be expected that the competencies of which people are most in need will change. Opportunities to develop needed competencies should be available throughout life.)

(2) Studies to be conducted should extend beyond the APL list of competencies.

(3) Competencies specified by various studies should be analyzed to seek commonalities.

(4) Statements of competencies should reflect the integration of skills and knowledge implied in the definition of competency rather than isolated tasks—in Spady's terms, capacities.

(5) In providing instruction local programs should modify competency statements currently available to reflect local applications.

## **(2) Do We Have the Means of Measuring Competency:**

Once again, the answer is a qualified yes. We do have objective tests and procedures. Yet, many questions remain unanswered. If we accept that functional competency involves the integration of skills and knowledge, can competency be assessed through objective test items? To what extent do scores on tests such as APL reflect reading and math proficiency? What is the relationship between scores on objective tests and actual performance in a real-life setting? What level of performance on either an objective test or a task assignment is an adequate indication of functional competency?

Though information which relates to some of these questions is included in the preceding review, there is far too little to draw any conclusions. With the APL Survey and the performance indicators devised by New York State and Texas we can begin to investigate these questions. While use of an objective instrument is far more practical in programs that do not have a certificate to reward those who receive instruction, this method may reflect primarily isolated parts of a competency. In programs that provide a certificate an objective test is only part of the assessment of functional competency. If we are to really provide CBE to adults, we must insure that whatever method is used to determine attainment of competency is accurate.

## **RECOMMENDATIONS**

(1) Research is needed to investigate alternative ways of assessing competency. Convenient procedures for use in programs that do not lead to certification would be desirable.

(2) The relationships of basic skills and coping skills should be further investigated.

(3) Research should be conducted to ascertain the relationship between performance on a task and performance on an objective test.

(4) Levels of performance that adequately reflect minimal functional competency should be examined.

### **(3) Do We Have the Means of Providing Instruction?**

In many ways we are further along in providing instruction than we are in other areas. Model programs, both those that lead to certification and those that don't, have been developed and appear to be working well. More and more materials are being produced. There are, however, problems that must be dealt with. In programs that cannot provide a socially recognized certificate for demonstration of functional competency, there is a tendency to fall back to reading and math instruction as the basis for determining the sequence of activities. Life applications of skills are incorporated when students attain the appropriate basic skill level. Sole use of this approach tends to dilute functional competency instruction, to deemphasize the problem solving aspects, and to overlook the alternatives for attaining goals. The need for adequate ability in basic skills to perform well on coping skills tests and their usefulness for optimal life functioning cannot be denied. We must, then, devise better ways of integrating basic skills with the process of applying skills and knowledges to a functional end.

The importance of certification to students and to our society is another factor that cannot be ignored. Though students respond favorably to life related instruction, the lack of a certificate based on this instruction invariably results in giving it a lower priority. This makes recruitment a problem. It is in the high school diploma programs that the process of CBE is more fully implemented. In fact, these programs appear to contain the six (6) elements of CBE as listed by Spady to a far greater extent than adolescent secondary education programs.

Overconcentration on certification, however, will blind us to the potential of functional competency instruction for populations who are not as interested in that certification. ABE programs have been criticized for not reaching a broader segment of the undereducated population. The person who can barely read and compute is the one who does not tend to voluntarily enter or to stay in our programs. In areas other than certification we more often philosophize about providing education to meet the specific goals of clients than we actually provide. With more curriculum guides based on functional competency objectives, we are now more capable of diversifying instruction for other types of students. We have only begun to meet the potential of CBAE in both certificate and non-certificate programs.

### **RECOMMENDATIONS**

- (1) There is a need to develop and research techniques for recruiting people into CBAE functional competency programs.
- (2) Greater dissemination and implementation of current program models is needed.
- (3) More staff training must be provided.



(4) Research is needed to investigate the effects of different ways of incorporating competency instruction into programs.

(5) Materials for specific subgroups, such as ESL students and beginning level ABE students, must be developed. Materials developed should provide suggestions for alternative learning experiences which would enable a person to attain a functional competency goal.

#### (4) What is the Effect of CBAE Instruction?

Both the Louisiana and New England programs indicate that functional competency instruction has increased people's life coping knowledge and skills. While it is not clear how many of the graduates from the New York and Texas diploma programs had to learn in order to satisfy the life competency requirements, the existence of those requirements suggests that some degree of learning probably took place with some graduates. In the New York situation this learning occurred in the community whereas in Texas the learning was provided within an ABE program. Students' perceptions of increased learning are invariably positive. Moreover, there are indications that the instruction in these and other programs responded to specific concerns of the students. In some instances this response was the identification of an appropriate resource or assistance in handling a specific problem. In other cases the instruction provided information which helped people to make a decision. Clearly, students *think* they are better able to deal with some of life's challenges; this in itself is likely to promote a willingness to act.

Data from the New York, Texas and Louisiana programs indicate that competency programs tend to retain students at a higher proportion than do our traditional ABE programs. The reports of program staffs in the Southeast, Illinois and New England support this observation.

The reports and data also indicate that the program staffs are enthusiastic about the possibilities of functional competency instruction, especially after that instruction has been implemented. There are frustrations—knowing what to teach and how to teach it is one. Access to the APL modules developed by the Texas staff eases this frustration. A year of experience and the realization that the teacher does not have to provide all of the instruction also helps. Providing life skills instruction appears to broaden the staffs' perspective of ways in which they can help their students. Greater awareness of community resources to which students can be referred or which can be called upon to provide assistance with instruction seems to be a common by-product of the life skills experience.

The experiences, then, of the various programs suggest that the instruction is helping people, motivating students and modifying the perceptions of appropriate curriculums for ABE programs. A more complete understanding of the effects of functional competency instruc-

tion will necessitate collection of additional quantitative and qualitative data over a period of time.

## RECOMMENDATIONS

(1) More research is needed to ascertain if the diploma from CBAE programs is accepted by colleges and employers. This research should also examine the performance of graduates in school and on the job, and the relationship of performance to:

- Acquisition of the certificate
- Competencies learned to acquire the certificate.

(2) Additional controlled comparison studies investigating the effects of instruction are needed.

(3) The finding of the Louisiana study regarding the greater increase in basic skills scores of APL students should be further investigated.

(4) Qualitative information regarding the effect of functional competency instruction on people's lives outside of school should be systematically collected. We must find out if our students are acquiring processes which are applied to problems and concerns not specifically included in the functional competency curriculums.

## CONCLUSION

There is a great potential in the functional competency curriculums—potential for helping people with specific concerns, potential for developing generalized competency. Yet, there is much to be done before this potential is fully realized. We are developing the means of providing instruction while still determining the competencies and the best ways of measuring competency. The identification of competencies is in itself an enormous task; the list may be endless and continually in flux. Society changes, people in that society change. It is, therefore, doubtful that all competencies will be applicable to all people at any point in their lives. If we can engender integrated processes, our students will be in a better position to generalize those processes to new situations.

The concurrent development of different components of functional competency adult education is not, however, a bad situation. Development in each area can benefit development of the others if we continue to and strive for exchange of information.

We are off to a good start: The work completed is flawed, but objective examination of it can lead to improved programs and measures.

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### **III. Selected Issues in Competency-Based Adult Education: A Delphi Study**

*by Paul G. Taylor*

On September 28-29, 1977, a meeting of adult educators was held in Metairie, Louisiana, to begin planning a State Directors workshop on competency-based adult education (CBAE). The Division of Adult Education of USOE convened this meeting for the purpose of obtaining assistance and input from others in the field on major objectives for the workshop and the scheduling of components.

The two sessions which made up this day-and-a-half meeting were long and intense. It became clear in attempting to develop the format and content of the workshop that the point at issue, competency-based adult education, was far from clear in everyone's mind. Heavy and often somewhat heated, albeit friendly, discussions took place between the state, local, and national representatives who held diverse feelings about and reactions to CBAE in terms of the Adult Education Act. Principal among these variant views on CBAE were questions of assessing the competency needs of adults, programming ramifications, criteria for reporting success, legislation, funding, impact on State planning and general provisions for providing educational services. The planning committee and others at these sessions numbered about twenty. The prospect of nearly 200 persons in a group session reacting similarly to CBAE topics during a two-and-one-half day workshop was not considered too positively, and underscored the need to be selective, yet relevant, in organizing the workshop content.

One of the results of the planning committee sessions was an identification of some of the major issues in competency-based adult education relative to the Adult Basic Education (ABE) program. The issues are listed below; number does not mean or imply a priority ranking.

1. How does CBAE relate to reaching the least educated adult?
2. How should CBAE, as an organizing principle, be considered in providing educational services to *all* adults?
3. How may the competency needs of adults be determined or identified at the State level?
4. What are significant factors in developing effective CBAE programs?
5. What criteria should or could be developed for reporting *success* in CBAE?
6. What are the programming ramifications of CBAE as opposed to grade levels?
7. How should legislation be modified in relation to CBAE?
8. How should CBAE impact on 1979-1980 State planning?
9. How should State funding for CBAE be developed?
10. How should resources other than ABE funds be coordinated for providing CBAE?
11. What kinds of additional CBAE research would be most useful to you?

Having arrived at general agreement that the 11 issues represented a core for continued workshop planning, steps were taken to integrate these into substantive activities. It is important to keep in mind that the planning activities for the USOE Invitational Workshop on Adult Competency Education continued on from the September 1977 meeting through most of January 1978. This is not to say that the workshop agenda was a last minute design. As a part of on-going planning and workshop input, an assessment of the 11 issues concerning CBAE was conducted using a modification of the Delphi Technique.

The Delphi Technique (Helmer and Rescher, 1960; Helmer, 1966; Helmer, 1967) is a "key informant" procedure for obtaining consensus among individuals who arrive at a group position without face-to-face discussion. Consensus is achieved by having experts in a field complete a series of questionnaires interspersed with controlled opinion feedback. The first questionnaire (#1) is open-ended: requesting concise statements of opinion. This is followed by a Likert-type scale questionnaire (#2) derived from #1 responses, which in some instances have been reduced to generic terms. Questionnaire #3 is the same as #2 except that it contains both a group consensus indicator *and* the respondent's prior rating for each item: respondent re-rates items and, if applicable, states a reason for remaining outside group consensus. The final questionnaire (#4) includes the immediately prior responses (to #3), a revised group consensus, and any dissenting opinions.

The original use of the Delphi Technique was as a forecasting tool. Its expanded application included the attempt to arrive at consensus regarding the desirability of certain events or outcomes. Delphi, as a method of clarifying and setting objectives in education, was utilized by Anderson (1970). Weaver (1971) and Cyphert and Grant (1971) described studies in

education using a modification of Delphi and considered the process and product of the technique. Modification of the technique have been used to validate science teaching competencies (Simpson and Brown, 1977) and with career education content (Sklare, 1977). Rossman (1973) has applied the Delphi to adult education.

There were three major reasons for using a modified Delphi Technique for the survey of State Directors of Adult Education and USOE Division of Adult Education persons. First, the problems at hand and the tasks to be performed were so broad that more individuals were required to share opinions than could interact in any face-to-face interchange. Secondly, the distances between respondents were great and it was not possible to bring people together for frequent group meetings. And thirdly, to cut down on some of the confusion that usually prevails at a first meeting and avoid the influences of certain factors (e.g. bandwagon effects, unwillingness to abandon publicly stated opinions, etc.). A modified Delphi was used primarily because of the sample size, time parameters and the availability of resources.

The sample consisted of the State Directors of Adult Education; that is, those persons identified as such by the U.S. Office of Education/Division of Adult Education list. Division of Adult Education persons were counted as a single respondent for Delphi Questionnaire #1 only.

Table 1. Responses to the Delphi Survey Questionnaires by State Directors of Adult Education and USOE Division of Adult Education Persons

Delphi questionnaire	Population* N=	Useable responses N=	Return percent
Number 1 -----	54	32	.59
Number 2 -----	73	60	.82
Number 3 -----	60	53	.88

\*Population for Delphi #1, N=54, erroneously omitted American Samoa and the Trust Territories of the Pacific. The N=73 for Delphi Questionnaire #2 included the total, N=56, State Directors of Adult Education; added the Federal-Regional Program Officers and counted the individual USOE/DAE person's responses to Delphi Questionnaire #1.

Six states did not respond to any of the Delphi Questionnaires.

The State Directors of Adult Education were requested to recommend persons to receive invitations to the Workshop. The initial list was made up of 108 names. This group was requested to complete Delphi Questionnaire #2 only because of time limitations. The Invited Participant (IP) group did not have the opportunity to react to Delphi Questionnaire #1 and there was not sufficient time to permit a response to Delphi Questionnaire #3 before the Workshop convened. The opportunity to participate in the Delphi survey, albeit not completely, was provided because the results of the full survey were to be presented to the total Workshop and, more importantly, small group activity was planned around data from the Delphi.

Table 2. Response to Delphi Questionnaire, Number 2 by Persons Invited to Participate in the USBOE Workshop on Adult Competency Education, February 22-24, 1978

Delphi questionnaire	Population N=	Usable responses N=	Returns percent
Number 2	108	56	52

The Invited Participant (IP) group represented varied educational roles from 34 states. The IP group was made up of the following types: State Department of Education adult educators; State Department of Education non-adult educators; State Board of Education members; Adult Education project directors; university persons; public school Adult Education administrators; public school non-adult administrators; State legislators, and Corrections Department educators.

The methods of analyses of the data from Delphi Questionnaires #2 and #3 were arithmetic average, the Mean score computation, and tabulation of the Mode for each item. Single Modality was considered as consensus or general agreement.

#### Results

The objective of Delphi Questionnaire #1 was: "through written responses, to aggregate the judgment of State Directors of adult education in order to obtain a preliminary position on issues relative to Competency-Based Adult Education (CBAE)." Although no definition of CBAE was provided, it was assumed that the sample possessed an awareness of the concept in generic terms. Thirty-two responses were received. The number of statements on the 11 issues totaled 348.

Delphi Questionnaire #2 was derived from the responses to #1. A compilation of similar items was made and individual responses were reduced to generic statements encompassing related ideas. The 138 generic statements which resulted were listed as 65 items with subparts in a Likert-type scale questionnaire. The ratings were:

- 1 = Strongly Agree
- 2 = Agree
- 3 = No Opinion
- 4 = Disagree
- 5 = Strongly Disagree.

A return of 82 percent was obtained from the State and Federal adult educators.

Responses to Questionnaire #2 were subjected to analysis: Mean score and Mode for each item were tabulated. While a consensus, general agreement, was shown for all the statements, the response to 43 items indicated that sizeable numbers of respondents remained outside the Mode. These items were: 3, 6, 8, 10, 19, 20a, 20c, 20d, 21, 23, 24, 26,



27h, 27k, 27l, 30, 32b, 32e, 32g, 37, 42a, 42c, 42g, 43a, 43f, 43g, 44, 45, 47, 48, 50d, 51, 52, 54c, 54f, 55, 56a, 56c, 56e, 57, 58, 59, and 64. Many of the questionnaires contained comments either on individual statements or on the question of CBAE as a whole. The lack of a definition from which to respond created a problem for several respondents. Item 62 of the Questionnaire, "CBAE is too broad a term to throw around without further definition", met with agreement. From the response to the Delphi Questionnaire #2, it was clear that a functional definition of CBAE was needed.

Questionnaire #3 was the same as #2 except that it contained the respondent's prior rating and the Mean score for each statement. Respondents were requested to re-rate items; however, they were not asked to state reasons for remaining outside of the group consensus (in this case the average score). This constituted a major departure from the full application of the Delphi Technique, but was done for two reasons: there was not going to be a fourth questionnaire because of time constraints and the reply to Questionnaire #2 showed only a 31 percent incidence of statements on which persons remained somewhat outside of consensus. The Questionnaire had an 88 percent return.

As mentioned earlier, the Invited Participant group was given an opportunity to respond to Delphi Questionnaire #2. Fifty-six persons returned useable replies: 52 percent return. Tables 3 through 14 show the Mean scores of the Delphi statements for the State Directors of Adult Education and USOE Division of Adult Education respondents to Questionnaire #3 (the final round) and for the Invited Participants to Questionnaire #2.

Table 3. Issue 1. How Does Competency-Based Adult Education (CBAE) Relate to Reaching the Least Educated Adult?

Item	D*	IP**
1. CBAE would serve a large number of adults who are not seeking a certificate, diploma, or degree -----	2.01	2.00
2. The least educated need CBAE the most -----	2.28	2.42
3. CBAE is the most effective basic method of instruction for reaching the least educated -----	2.73	2.42
4. CBAE will be least successful in reaching non-whites -----	4.01	4.03
5. CBAE will make it easier to teach basic skills -----	2.28	2.00
6. CBAE is not the highest priority in reaching the least educated -----	2.94	2.89
7. CBAE is not an acceptable approach for teaching the least educated adult -----	4.16	4.01
8. Some basic reading and math skills should be acquired before utilizing CBAE curriculum -----	2.75	2.94
9. CBAE should be carefully adapted to meet the educational needs of limited or non-English speaking adults both culturally and linguistically -----	1.92	1.91

\*Delphi group, State Directors and Division of Adult Education staff

\*\*Invited Participant group.

**Table 4. Issue 2. How Should CBAE, as an Organizing Principle, be Considered in Providing Educational Services to All Adults?**

Item	D*	IP**
10. Competency-based education has always been the focus of any reputable and productive adult education program -----	2.42	2.60
11. CBAE programs should be an alternative for <i>all</i> adults -----	2.16	1.83
12. CBAE should be considered as an underlying principle in providing educational services to adults -----	1.75	1.70
13. CBAE should <i>not</i> be used as an organizing principle for adult education -----	3.58	3.92
14. CBAE should be used totally in weaker adult education programs -----	3.81	3.89
15. Sound instructional programs should integrate CBAE activities into existing framework -----	1.54	1.58
16. Prior knowledge and experience of students should determine the use of CBAE -----	1.94	2.19
17. CBAE should be organized around the principle of meeting individual adult student needs -----	1.32	1.28
18. CBAE will provide encouragement, support, and assistance to adults in their learning -----	1.83	1.51

\*Delphi group. State Directors and Division of Adult Education staff

\*\*Invited Participant group.

**Table 5. Issue 3. How May the Competency Needs of Adults Be Determined or Identified at the State Level?**

Item	D*	IP**
19. Competency-based surveys should be checked against those competencies nationally identified in the APL -----	2.54	2.18
20. Competency needs of adults may be determined or identified at the State level by:		
a. annual program reports -----	3.24	3.09
b. Statewide survey-needs assessment -----	2.15	1.94
c. resource centers -----	2.51	2.33
d. State advisory groups -----	2.90	2.50
e. testing of adults -----	2.22	1.96
f. cooperating State agencies and organizations -----	2.39	2.31
21. The competency needs of adults <i>cannot</i> be determined at the State level -----	3.41	3.19
22. Competency needs of adults <i>must</i> be determined:		
a. at the local level -----	1.81	1.69
b. at the local level and consolidated at the State level -----	1.92	1.98
c. by target populations -----	2.44	2.43
d. on an individual student basis -----	1.43	1.80

\*Delphi group. State Directors and Division of Adult Education staff

\*\*Invited Participant group.

**Table 6. Issue 4. What are Significant Factors in Developing Effective CBAE Programs?**

Item	D	IP
23. CBAE is principally a delivery system -----	3.32	2.61
24. CBAE requires a basic change in the traditional role of the teacher of adults -----	2.24	2.25
25. Effective CBAE programs require materials which bridge the cultural realities of limited or non-English speaking adults and the dominant society -----	1.94	1.87
26. Everyone seems to be going off in their own direction. CBAE should be coordinated at the national and regional levels -----	3.03	2.94
27. Significant factors in developing CBAE programs:		
a. Staff development -----	1.35	1.29
b. Development of learning materials -----	1.69	1.38
c. Development of assessment instruments -----	1.45	1.41
d. Assessment of individual needs -----	1.28	1.36
e. Assessment of target population(s) need -----	2.16	1.90
f. Provision for alternative instruction and measurement -----	1.75	1.53
g. Present and future life concerns as curriculum base -----	1.81	1.62
h. Reporting system -----	2.15	2.16
i. Organization/implementation training for local administrators -----	1.64	1.60
j. Development of a credentializing system based on competencies -----	2.52	2.10
k. Consideration of the wishes of referral agencies -----	2.60	2.49
l. Extent of inclusion of educationally related minority group organizations -----	2.62	2.56
m. State and Federal support -----	1.94	1.56
n. Research and testing capability -----	1.88	1.75

In analyzing the data for the purposes of the Delphi survey, attention was given to the modal response for the items; that is, to the "most popular" score in the set or the score that occurred most frequently. While there was a consensus on all of the items contained in the questionnaire, several of the statements or their subparts were further examined. This was because, although general agreement was made, sizeable numbers of respondents remained outside the mode. Listed below (by item number) are the twenty-one statements which *both* the State Directors/Division of Adult Education group and the Invited Participant group rated as described.

- Item 6. CBAE is not the highest priority in reaching the least educated.
- Item 8. Some basic reading and math skills should be acquired before utilizing CBAE curriculum.
- Item 20a. Competency needs of adults may be determined or identified at the State level by *annual program reports*.
- Item 20d. Competency needs of adults may be determined or identified at the State level by *State advisory groups*.

**Table 7. Issue 5. What Criteria Should or Could be Developed for Reporting Success in CBAE?**

Item	D	IP
28. CBAE should include a system of feedback and continual program evaluation -----	1.39	1.42
29. The criterion that should be developed for reporting success in CBAE is an evaluation of student progress in accordance with predetermined standards -----	1.88	1.98
30. Success as measured by pencil and paper tests defeats the purpose of much of CBAE -----	2.86	3.01
31. Criteria for reporting success in CBAE is <i>not</i> a key issue -----	4.00	3.60
32. Criteria for reporting success in CBAE must include:		
a. the accomplishment of short-term learning goals -----	1.69	1.75
b. correlation of CBAE results with high school seniors -----	3.23	3.00
c. the demonstration of competencies that result in the realization of stated goals -----	1.56	1.66
d. acceptance of CBAE instruction by recognized agencies, institutions, etc. -----	1.96	2.20
e. national consistency -----	2.58	2.83
f. its relationship to CBAE program outcomes -----	2.30	1.92
g. total mastery of competency objectives -----	2.66	2.83
h. indicators such as improved retention, increased enrollment, enhanced employability -----	1.73	1.92
i. outcomes that are agreed upon by client and staff -----	1.60	1.74
33. Success criteria must be easily understood by all segments of the community -----	1.94	1.92
34. Program success must be measured against the personal goals of participants -----	1.73	1.78

Item 21. The competency needs of adults *cannot* be determined at the State level.

Item 23. CBAE is principally a delivery system.

Item 26. Everyone seems to be going off in their own direction. CBAE should be coordinated at the national and regional levels.

Item 30. Success as measured by pencil and paper tests defeats the purpose of much of CBAE.

Item 32b. Criteria for reporting success in CBAE must include *correlation of CBAE results with high school seniors*.

Item 32e. Criteria for reporting success in CBAE must include *national consistency*.

Item 32g. Criteria for reporting success in CBAE must include *total mastery of competency objectives*.

Item 37. Grade levels in ABE have essentially been eliminated for other than reporting purposes.

Item 42a. CBAE, as opposed to grade level, requires *the assessment and certification of experiential prerequisites for entry into courses*.

**Table 8. Issue 6. What Are the Programming Ramifications of CBAE as Opposed to Grade Levels?**

Item	D*	IP**
35. A portfolio of attained competencies should be provided for each adult -----	1.62	1.52
36. There are no grade levels in competency-based education -----	1.94	2.19
37. Grade levels in ABE have essentially been eliminated for other than reporting purposes -----	3.01	2.37
38. Reading and math grade levels are useful as <i>starting points</i> for instruction (for CBAE) -----	2.20	2.05
39. Grade levels <i>assume</i> results. We must consider education in terms of outputs -----	2.09	2.28
40. CBAE is the most current, relevant, and acceptable alternative to grade level instruction at this time -----	2.46	2.23
41. CBAE requires a less formal institutional structure -----	2.69	2.48
42. CBAE, as opposed to grade levels, requires:		
a. the assessment and certification of experiential prerequisites for entry into courses -----	2.62	2.48
b. <i>unique</i> instructional strategies, materials, assessment, and personnel -----	2.16	2.48
c. a more complicated reporting system -----	2.69	2.83
d. mastery of a skill sufficient to make it useful to the client -----	1.64	1.74
e. reported completion of learning projects -----	2.15	1.96
f. greater possibilities for individualization -----	1.71	1.94
g. the possible addition of personnel -----	2.71	2.72

\*Delphi group. State Directors and Division of Adult Education staff

\*\*Invited Participant group.

Item 42c. CBAE, as opposed to grade level, requires *a more complicated reporting system.*

Item 42g. CBAE, as opposed to grade level, requires *the possible addition of personnel.*

Item 43a. Legislation should be modified in relation to CBAE by *establishing competency levels and doing away with grade levels.*

Item 43g. Legislation should be modified in relation to CBAE by *requiring other major programs with authority to use funds for CBAE to sign-off on adult education State Plans.*

Item 47. It is too early to tell how legislation should be modified in terms of CBAE.

Item 48. States should receive Federal financial incentives based on the extent of their adoption of CBAE.

Item 52. Planning for CBAE should be left to the local education agencies (LEA's).

Item 58. I am not aware of other sources of funds for CBAE.

**Table 9. Issue 7. How Should Legislation Be Modified in Relation to CBAE?**

Item	D*	IP**
43. Legislation should be modified in relation to CBAE by:		
a. establishing competency levels and doing away with grade levels -----	3.05	2.83
b. recognizing it as an alternative for adults who are not successful in the traditional system -----	2.03	1.83
c. authorizing competency-based education as well as grade level instruction -----	2.03	1.85
d. reflecting changes in terminology and measurements of progress -----	1.96	1.92
e. providing special funds for States for the planning and implementation of Statewide CBAE -----	2.09	1.63
f. facilitating a leadership role for USOE -----	2.75	2.23
g. requiring other major programs with authority to use funds for CBAE to sign-off on adult education State Plans -----	3.35	2.72
44. A method of instruction should <i>not</i> require any legislative input -----	2.07	2.50
45. There is no need to modify legislation -----	3.16	3.43
46. Legislation should give broad direction but should not be affected by actual classroom activity -----	2.30	1.83
47. It is too early to tell how legislation should be modified in terms of CBAE -----	2.54	2.81
48. States should receive Federal financial incentives based on the extent of their adoption of CBAE -----	3.39	3.01
49. National criteria for competence should <i>not</i> be legislated -----	1.88	1.67

\*Delphi group, State Directors and Division of Adult Education staff  
 \*\*Invited Participant group.

The Invited Participant group's ratings of the five statements listed below followed the same pattern of having meaningful numbers of respondents remain outside the mode.

- Item 41. CBAE requires a less formal institutional structure.
- Item 44. A method of instruction should *not* require any legislative input.
- Item 51. CBAE should *not* have *mandated* impact on State planning.
- Item 55. CBAE does not appear to be a separate funding issue.
- Item 64. CBAE should separate itself from competency-based education laws/resolutions for elementary and secondary school.

The State Directors/Division of Adult Education group, on the other hand, had two statements which were rated so as to warrant further examination.

- Item 3. CBAE is the most effective basic method of instruction for reaching the least educated.

**Table 10. Issue 8. How Should CBAE Impact on 1979-1980 State Planning?**

Item	D*	IP**
50. CBAE should impact on 1979-'80 State planning by:		
a. establishing CBAE as a Section 309 funding priority -----	2.45	2.09
b. concentrating on the development of materials and the training of teachers -----	2.01	1.80
c. identifying and coordinating other adult-serving agencies and institutions -----	2.26	2.01
d. authorizing funding priorities for CBAE -----	2.56	2.10
e. initiating actual infusion activities into existing programs -----	1.98	2.03
f. providing flexibility in operations so that LEA's and other agencies can address needs -----	1.60	1.74
g. assimilating CBAE into the curriculum in State planning based on adult student needs -----	1.84	1.87
h. facilitating the use of CBAE success indicators -----	1.98	1.96
51. CBAE should <i>not</i> have <i>mandated</i> impact on State planning -----	2.24	2.56
52. Planning for CBAE should be left to the local education agencies (LEA's) -----	3.11	2.80
53. I don't know how CBAE should impact on State planning -----	3.81	3.53

\*Delphi group. State Directors and Division of Adult Education staff

\*\*Invited Participant group.

**Table 11. Issue 9. How Should State Funding for CBAE Be Developed?**

Item	D*	IP**
54. State funding for CBAE should be developed:		
a. by demonstrating the need for research, pilot programs, and evaluation -----	2.18	2.00
b. by utilizing competency-based criteria to justify the need for increased funding for adult education -----	2.35	2.09
c. in coordination with other competency-based education such as K-12 and two-year college programs -----	2.66	2.36
d. in the same ways as support for ABE is developed -----	2.30	2.54
e. by making a case for it and going after it -----	2.05	2.20
f. by demonstrating leadership to elementary and secondary programs in CBAE -----	2.58	2.50
55. CBAE does not appear to be a separate funding issue -----	2.22	2.72

\*Delphi group. State Directors and Division of Adult Education staff

\*\*Invited Participant group.

Item 45. There is no need to modify legislation.

As the above listings show, of the total 138 items in the Delphi questionnaire, 28 of these have a response which indicated a degree of diversity: twenty-one statements shared by both groups; five statements varied for the Invited Participant group only, and two statements with a variant rating for the State Directors/Division of Adult Education group.

Further and continuing examination of these data, of course, may lead to other interesting differences in response; for example, an examination

**Table 12. Issue 10. How Should Resources Other Than ABE Funds Be Coordinated for Providing CBAE?**

Item	D*	IP**
56. Resources other than ABE funds can be coordinated to provide CBAE:		
a. by utilizing other State funding for administration and high school equivalency .....	2.60	2.51
b. as has been done in the past with ABE programs .....	2.32	2.53
c. by requesting funding from organizations affected by CBAE programs (i.e., government, business, industry, other local agencies) .....	2.43	2.42
d. by identifying appropriate segments of other programs that can be supported within their own guidelines .....	2.20	2.44
e. by encouraging LEA's to set aside funds for CBAE .....	2.54	2.33
57. The present funding is adequate for implementing CBAE programs into ABE programs .....	3.47	3.70
58. I am not aware of other sources of funds for CBAE .....	3.13	2.84
59. Coordination of Federal funds channelled to each State would provide supplemental funds for CBAE development.	2.30	2.30

\*Delphi group, State Directors and Division of Adult Education staff

\*\*Invited Participant group.

of regional means and modes for the statements. This analysis will be taking place at another time.

Of all the ratings of all the items by 169 persons (the State Directors/ Division of Adult Education group rating twice), only three statements emerged *without* a single "disagree" or "strongly disagree" having been recorded. They are listed below.

Item 27a. Significant factors in developing CBAE programs: *Staff Development*

Item 27d. Significant factors in developing CBAE programs: *Assessment of individual needs*

Item 28. CBAE should include a system of feedback and continuing program evaluation.

One purpose for conducting the study was to use its results on a continuing basis for conference planning. A form of this planning was the identification of adult competency education items (statement-questions) for small group discussions.

After the returns from the Delphi Questionnaire #2 were tabulated (i.e., the mean score and mode for each statement), an examination was made of the items, and the issues under which they appeared, to determine where the most diversity of response occurred. In addition, close attention was given to the written comments contained on many of the questionnaires. Since the statements which made up the questionnaire were collected from the State Directors and the Division of Adult Education staff persons, any sizeable differences in the responses to any



**Table 13. Issue 11. What Kind of Additional CBAE Research Would Be Most Useful to You?**

Item	D	IP
60. No additional research on CBAE is needed at this time	4.28	4.26
61. Further research is needed in the area of:		
a. employer acceptability	1.73	1.67
b. post-secondary acceptability	1.81	1.73
c. relationship of competencies to skills	1.73	1.50
d. methodology of instruction for multiple populations	1.84	1.67
e. advanced competencies in specialized areas	2.05	1.85
f. how disadvantaged adults become competent learners	1.88	1.89
g. vocational competencies	1.88	2.05
h. comparison of CBAE to other forms of adult education	1.81	1.92
i. methods of evaluation and reporting CBAE	1.73	1.85
j. needs identification at State/local levels	1.81	1.75
k. secondary level curriculum	2.15	2.07
l. program development and follow-up	1.90	1.78
m. redevelopment of adult education staff(s)	1.77	1.87
n. diffusion and adoption of CBAE	2.03	1.98
o. adult learning theory for CBAE	2.01	2.19
p. adaptation of CBAE materials for the limited and non-English speaking clients	1.81	1.94
q. revalidation of the APL research	2.05	2.52

items could be used to identify areas for further discussion. Using this method, five statements were drafted for the participants to relate, to react, and eventually to respond to during the workshop. The statements are as follows:

1. Based upon prior experience and knowledge, the results of the Modified Delphi and your participation in this workshop, develop a functional definition of Competency-Based Adult Education (CBAE).
2. How should the determination of competency needs of adults impact on State planning?
3. What are critical elements of State and Federal legislation relating to CBAE?
4. How could adult education benefit from competency-based education laws or resolutions for elementary and secondary education?
5. Describe coordination/facilitation roles for the USOE Division of Adult Education concerning CBAE.

A copy of these items was included in the workshop folder given to each person at the time of registration.

For the small discussion activity at the Workshop, persons expected to attend were assigned to one of ten groups. The assignment to a group was done in advance of the workshop date. Persons were assigned to groups because a structured or stratified sample was desired for each

**Table 14. Issue. Miscellaneous Statements\***

Item	D**	IP***
62. CBAE is too broad a term to throw around without further definition -----	1.92	2.35
63. Functional competencies should include the ability to be a lifelong learner -----	1.96	1.60
64. CBAE should separate itself from competency-based education laws/resolutions for elementary and secondary schools	3.30	3.26
65. CBAE should provide an alternative to GED and Carnegie Unit-based adult secondary completion programs -----	1.80	1.94

\*These items were added to the Delphi Questionnaire. They were received in response to Questionnaire #1 too late to be included under relevant issues.

\*\*Delphi group, State Directors and Division of Adult Education staff

\*\*\*Invited Participant group.

cluster: a minimum of ten different types of education practitioner, by job title or place of employment, was forseen. Also, because several states and adult education projects had had extensive experience with competency-based education, it was planned that persons representing these areas be spread throughout the groups. In this manner, it was hoped that clusters of about twenty persons with a variety of backgrounds, employment in education, geographical location, and knowledge in the area of competency-based education would be formed. With the groups so chosen in advance; the five items listed above as agenda or discussion topics; group recorders and facilitators selected and assigned, this pre-planning activity for the USOE Workshop on Adult Competency Education was considered settled.

On Tuesday evening, February 21, 1978, a meeting of the small group facilitators and recorders was held in the International American Motor Inn, Metairie, Louisiana. The Workshop was to convene the next morning at 9 a.m. and this session provided the opportunity to discuss the data-gathering procedures to be used with the discussion groups. Included in the description were: the method of collating the group findings; organization and tabulation of the reports; the rating methods, and the data feedback strategy that would be employed during the Workshop. The facilitators and recorders were provided with the results of the Modified Delphi study. Also, questionnaire statements were discussed in terms of the items for which modal variety was important and those statements which were used to make up the small group discussion topics. The methods and procedures which were put to use are described, by Workshop session, below.

Group Session I. Wednesday morning, February 22. The instructions for the small groups were to examine the CBAE issues: that is, the five statements listed above. At the end of the morning session, each group's recorder was to submit a record of his/her group's response to Item 1 on the functional definition of CBAE and any other *three* items.

While the afternoon plenary session was being held, these responses were organized into a questionnaire which contained thirty-two statements: ten functional definitions of CBAE; six statements on State planning; seven statements on legislation; five on elementary/secondary relations, and four on USOE facilitation. A four-point rating scale was imposed: 1. Acceptable; 2. Acceptable with Minor Revisions; 3. Acceptable with Major Revisions, and 4. Not Acceptable. Participants were requested to make written comments for statements which they rated 2, 3 or 4.

Plenary Session II. Wednesday afternoon. February 22. Copies of the questionnaire were distributed. Instructions were given to the participants and questions answered. The thirty-two statement instrument was collected at adjournment.

Tabulation of the responses took place Wednesday evening. Assisted by the group/facilitators, mean scores were computed for each statement and the written comments were compiled. For Thursday's session, two groups were randomly selected to work on *each* of the CBAE items.

Group Session II. Thursday morning. February 23. Results of Wednesday's ratings of the questionnaire statements were provided for the small groups. Groups selected to work on specific areas (e.g. definition) were instructed to consider all of the statements that were recorded, the mean scores of each statement, and any comments made in developing their statement during this session.

Wednesday's procedures were followed once again. As the participants attended the afternoon's scheduled events, a questionnaire, which contained the ten statements, was made up. The same four-point rating scale was used.

Plenary Session III. Thursday afternoon. February 23. The ten-statement questionnaire was rated by the participants.

On Thursday evening and early Friday morning, the mean scores were tabulated for each statement and, as before, comments were compiled. Based on the analysis of these data, five statements were prepared, one for each issue, to be presented to and discussed by the Workshop participants.

Plenary Session IV. Friday morning. February 24. The statements on the CBAE issues which were so developed during the small group sessions were put forward. A discussion followed. These statements were neither formally nor informally adopted as Workshop positions. They are contained on the following pages: each issue taken separately.

#### **ADULT COMPETENCY EDUCATION ISSUES AND RESPONSES REFLECTING GROUP CONSENSUS AT THE NEW ORLEANS WORKSHOP**

1. Based upon prior experience and knowledge, the results of the Modified Delphi and your participation in this workshop, develop a

functional definition of Competency-Based Adult Education (CBAE).

Competency-based adult education is a performance-based process leading to demonstrated mastery of basic and life skills necessary for the individual to function proficiently in society.

2. How should the determination of competency needs of adults impact on State planning? Planning steps that States should take:
  - A. A study of adult competency needs as identified by individuals, agencies, employers, and local and State governing officials.
  - B. Wide dissemination of the study.
  - C. Based upon responses to the study, review and revise the results and apply these to State planning mechanisms.
  - D. The planning efforts of State governmental agencies should be coordinated.
  - E. Planning should include but not be limited to:
    - (1) Channeling resources to meet needs.
    - (2) Professional development and recognition.
    - (3) Specification of needs assessment techniques.
    - (4) Learner and program accountability.
    - (5) Program evaluation.
    - (6) Development of guidelines to assist in curriculum decision-making.
    - (7) Development of consultative and communication systems to provide technical assistance.
    - (8) Accurate data collection and reporting systems.
3. What are critical elements of State and Federal legislation relating to CBAE?
  - A. Federal statute should provide broad authorization and funding for programs of basic education for adults through the secondary level.
  - B. State and Federal guidelines should encourage a variety of instructional and curricular alternatives.
  - C. State and Federal guidelines should facilitate implementation of CBAE.
  - D. State and Federal reporting forms should accommodate the reporting of students enrolled on the basis of CB, as well as grade level measures.
  - E. State laws and resolutions should address the following issues:
    - (1) Program accountability
    - (2) Certifications for learning outcomes;
    - (3) LEA autonomy and flexibility;
    - (4) Measurement of outcomes.
4. How could Adult Education benefit from Competency-Based Education laws or resolutions for elementary and secondary education? Positive effects for adult education of elementary and secondary minimum competency laws and resolutions may include:

- A. Fewer time restraints;
- B. Fewer highly structured classes;
- C. Greater acceptability of credit by examination or other demonstration;
- D. Greater acceptability of CBAE diplomas or certificates awarded by examination or for performance;
- E. Increased opportunities for adult educators to provide leadership in defining and developing CBE;
- F. Provide an opportunity for adult education to exert leadership in defining and developing competency education;
- G. Acceptance of the competency education approach and a competency-based high school diploma as an alternative;
- H. Provide adult education with additional learners.

Other effects for adult education of elementary and secondary minimum competency laws and resolutions may include:

- A. Less support for CBAE as a "reform" because of an emphasis on basic skills acquisition in isolation;
  - B. Adult education may be called upon to "compensate" for gaps, affective areas or humanistic education, in an elementary or secondary education program.
5. Describe coordination/facilitation roles for the USOE Division of Adult Education concerning CBAE.
- A. Accomplishment of objectives.
    - Encourage full-time adult education programs
    - Emphasize CBAE as a 309 priority.
    - Coordinate efforts among all educational levels.
  - B. Policy recommendation and interpretation.
    - Provide for national research and development.
    - Discourage the use of national testing for adults.
  - C. Providing technical assistance and human resources.
    - Maintain effective communications with the States.
    - USOE should maintain contact person for CBAE.
    - Provide resources to State and regional levels.
    - Provide technical assistance for evaluation, reporting, and research.
  - D. Dissemination of research, materials, and products.
    - Provide a national forum for issues.
    - Share evaluations and project reports.
  - E. Encourage professional development and activities.
    - Provide a forum for national issues in staff development.
    - Provide some staff development opportunities.

#### Conclusion

The Delphi survey of the State Directors of Adult Education, USOE Division of Adult Education and others served the purposes for which it

was intended. Consensus was achieved on 138 statements of Competency-Based Adult Education, and the survey's mid-point data was used to assist in developing small group session activities at the Workshop. In summary, the Delphi's importance may be considered in terms of the following factors:

- Forty-nine State Directors of Adult Education responded to at least one of the Delphi Questionnaires which demonstrated both high participant motivation and a legitimate concern for Competency-Based Adult Education.
- Eleven issues of concern with CBAE were addressed in 65 statements (138 individual items); 28 of which (16 percent) showed a degree of diversity sizeable enough to discuss further.
- Quantitative and qualitative data on CBAE has been amassed for continued analysis: statistical applications as well as the examination of over 450 written comments/statements.
- A functional definition of CBAE as well as statements on State planning, legislation, elementary and secondary relationships to CBAE, and USOE facilitation functions were evolved directly from the Delphi.

and

- Many areas of CBAE requiring further study and research have been identified.

The USOE Workshop on Adult Competency Education is now history. Who will remember? those who participated; who will benefit? those whom they serve.

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## Appendix A. Description of Workshop

The National Workshop on Adult Competency Education began on the morning of February 22 with welcomes from a number of friends of adult education. Among this group were Dr. Joe Rivet, Executive Director of the Division of Academic Programs, Louisiana State Department of Education; Honorable John N. John, III, Louisiana State Representative; and Dr. Anthony Chimento, Executive Assistant Superintendent for Instruction, Jefferson Parish Public School System.

Plenary Session I—Chairperson Paul V. Delker then introduced the participants to the purposes and possibilities of the workshop. Following various announcements concerning workshop related business, the participants adjourned to ten group sessions to examine and discuss the five competency-based adult education (CBAE) issues presented in part I.

Group sessions were facilitated and recorded by the following persons (respectively): *Group A*—Dr. John Boulmetis, University of Rhode Island and Dr. Carroll Towey, Division of Adult Education, USOE; *Group B*—Gerardo Franciosa, Niagara Falls, New York, Adult Education and Dr. Grace Hewell, Division of Adult Education, USOE; *Group C*—Dr. Sam Dauzat, Northern Louisiana Technical University and Elaine Shelton, APL Project, University of Texas; *Group D*—Gary Conti, Spoon River, Illinois, College and M. Eldon Schultz, Division of Adult Education, USOE; *Group E*—Dr. Charles Stafford, National Institute of Education and George Blassingame, Division of Adult Education, USOE; *Group F*—Judith Jaffee, Department of Housing and Urban Development and Dr. Gerald Randall, Division of Adult Education, USOE; *Group G*—Dr. Gene Tucker, Office of Planning Budgeting and Evaluation, USOE and David Leavitt, Division of Adult Education, USOE; *Group H*—Dr. Carroll Londoner, Virginia Commonwealth University and Dr. Jack Grisham, Division of Adult Education, USOE; *Group I*—Lana Murashkin, National Institute of Education and Raymond Lawrenson, HEW Regional Office—San Francisco; *Group J*—Penny

Richardson, Lifelong Learning Project and Dr. Roy Minnis, Division of Adult Education, USOE.

Plenary Session II—was chaired by James Parker, who updated participants on the state-of-the-scene nationally. In Fiscal Year 1978 over 150 projects are utilizing some \$8 million of Federal, State and local funds for CBAE research, development and staff training. Forty-three States are now involved in these efforts.

This session included a presentation by Dr. Paul Taylor on his Delphi Study Results. Dr. Joan Fischer also presented the State of the Scene in CBAE Research (see parts II and III of this report).

Before adjournment, participants were requested to fill out a survey instrument developed from the group sessions earlier in the day.

On February 23 the ten groups reconvened to further develop responses to the five issues.

The workshop luncheon featured Alfred Lamnon, President of a Lafayette Parish oil enterprise and a well-known storyteller. The group was entertained by a few tall tales, told in the Cajun style.

*The afternoon was devoted to presentations on the State of the Scene in CBAE Innovation.*

One of the workshop objectives was to assist participants in their awareness of innovative programs and projects in other parts of the country. In choosing the following nine projects, the planning groups attempted to give recognition to the diversity of efforts in CBAE, and to also give attention to statewide and multi-State competency activities.

*Presentation 1:*

*"Comprehensive Approach to Literacy Education in North Carolina*

Chairperson:

Dr. Joe Widenhouse  
Professor of Education  
Appalachian State University

Panelists:

Dr. Henry Goodman  
North Carolina A & T University  
Dr. Lin Compton  
North Carolina State University  
Dr. Leonard Lilly  
East Carolina University

Through joint funding by the State Office of ABE and CETA, North Carolina is implementing a community-based pilot project in adult literacy at five sites in the State. The objective of this year-long effort is to design and test a new approach aimed at mobilizing all relevant resources for effecting significant change in the level and extent of adult illiteracy.

Major features of the project are: a process approach to mobilizing and organizing community leadership to take greater responsibility for the



program, the provision and training of a comprehensive paid professional staff, an emphasis on volunteers as tutors and helpers in program roles, the development and testing of a functional literacy-oriented curriculum, and the administering of the university's role in relation to local staff and program development.

*Presentation 2:*

"Louisiana Statewide Assessment of Adult Education Needs in Industry, Business, Labor and Government Agencies"

**Chairperson:**

Glenn Gossett  
Adult and Community Education  
Louisiana Department of Education

**Panelist:**

George Broussard  
Halter Marine, Inc.  
Lockport, Louisiana

The Bureau of Adult and Community Education of the Louisiana State Department of Education has recently funded a special project to conduct a statewide survey of industry, business, labor, and governmental agencies to determine the needs and interest for adult education programs for their undereducated employees. Where sufficient interest existed from management and employees, the local parish adult education supervisors could establish satellite classes on an in-plant, in-house, or job-site basis. It is anticipated as a result of this survey and subsequent implementation of those results, there will be a substantial increase of the enrollment in adult education classes.

*Presentation 3:*

"Illinois Statewide CBAE Staff Development"

**Chairperson:**

Gary Conti  
Director of Continuing Education  
Spoon River College, Illinois

**Panelists:**

Dr. Wayne Giles  
Director of Adult Education  
Illinois Office of Education  
Dianne Marinelli  
Coordinator of CBAE Staff Development  
Illinois Office of Education

Now in its second year of operation, the Illinois CBAE Staff Development Project has trained ABE/GED administrators and instructors in techniques and processes for integrating CBE into on-going adult pro-

grams. New initiatives for the project include training of additional adult education staff by the project participants and dissemination of the staff development model.

*Presentation 4:*

**"CBAE in Adult Correctional Institutions"**

**Chairperson:**

Dr. Robert Pierce  
CBAHSD Program  
Huntsville, Texas

**Panelists:**

Elvin Long  
Director of Adult Education  
Missouri State Department of Education  
James Roth  
Adult Continuing Education  
Illinois Office of Education

Competency-Based Adult Education (CBAE) is beginning to make a significant impact in the field of corrections education for adults. Three of the most experienced programs in this area were represented in this presentation—the Huntsville, Texas CBAHSD Program, the Missouri State Corrections System APL Project and the Illinois State Corrections Program. Each of these programs explained their adaption of APL to the correctional setting. A dialog on issues allowed the group participants to interact with presentors. Issues include the special needs of institutionalized adults who function at very low levels; the lack of CBAE awareness in other State corrections programs; and the difficulty in involving correctional education programs which are not typically in the mainstream of the adult education movement.

*Presentation 5:*

**"Practical Tools for Implementing CBE Programs"**

**Presenter:**

Donna Lockard  
Region X Staff Development Program  
Northwest Regional Educational Laboratory

The purpose of the Competency-Based Education Staff Training Project is to develop five competency-based staff training workshops. The workshops address critical competencies required of adult education staff who implement a competency-based educational program including Adult Performance level instructional objectives and assessment of student competence.

Individualized instructional modules provide an alternative to workshop instruction. The philosophy and methods of competency-based education

are incorporated in the five workshops and individualized instructional modules.

Workshop and instructional module titles include:

- Improving Communication
- Introduction to Competency-Based Instruction
- Planning Instruction for CBE/APL
- Instructor CBE/APL Competencies
- Management of CBE/APL Programs

Region X Staff Development Coordinators have developed the training materials with the sponsorship of the Region X Adult Education Staff Development Program and the State of California, Department of Education.

*Presentation 6:*

"Model Systems to Collect, Evaluate and Disseminate Information on CBE Curriculum and Staff Development" Presentors:

Dr. James Hardison  
Director, ICEDS Project  
San Diego Community College District  
Barbara Korpi  
North Dakota APL Clearinghouse

The projects presented are model systems designed for California and North Dakota, but replicable in any State or local district. Utilization of commercial and funded project sources on curricular materials and methods, the development of criteria for initial screening, processes for field-testing, and dissemination networks for local levels are components of these systems.

*Presentation 7:*

"Making Decisions Relating to ABE Programs, Based on the Use of APL Functional Competency Measures"

Presenter:

Dr. Tom Mann  
Director, APL Program  
American College Testing

A purpose of any APL instrument is to enable adult educators to make decisions about learners and instructional programs. ACT has developed five *Content Area Measures*: one each in Community Resources, Occupational Knowledge, Consumer Economics, Health, and Government and Law. Each *Content Area Measure* is an in-depth assessment of skills and knowledge in the given area, and measures specific strengths and weaknesses within that area. Data obtained as a result of the administration of the measures can be used to provide a foundation and develop policy and procedures for implementing decisions relating to ABE curricular programs and learner needs.

**Presentation 8:**

**"Administrative Issues in CBAE"**

**Chairperson:**

Buddy Lyle  
Director, APL Program  
University of Texas at Austin

**Panelists:**

Bob Allen  
Director of Adult Education  
Texas Education Agency  
Jim Cates  
Assistant APL Coordinator  
University of Texas  
Elaine Shelton  
Project Manager, NDN Project  
University of Texas  
Linda Bayley  
Research Associate, APL Project  
University of Texas

The University of Texas APL Program has a number of State and national CBAE enterprises underway this year. Presentors discussed the competency-based approach to AE as an aid to management and accountability, the support needed to install CBAE in on-going programs and its utilization as an alternative to existing programs. The value of inter-agency cooperation in CBAE development was also stressed.

**Presentation 9:**

**"Life Skills/Employability Skills for Adults"**

**Chairpersons:**

Mary Reiss  
Director of Continuing Education  
New York State Education Department  
Neil Carr  
Continuing Education  
New York State Education Department

**Panelists:**

Elliot Lethbridge  
Elizabeth Buckley  
Phyllis Itzkowitz

The Adkins Life Skills program, which deals with affective aspects of adult learning, has expanded its operations to 20 States. Presentors discussed the operation of a local Life Skills program, provided an update on national implementation and on new curriculum developments, and dialoged with participants on CBAE issues relating to this program.

At the end of the day, participants were again asked to fill out a survey instrument that reflected the small group work on issues.

On February 24, Paul Delker chaired the final Plenary Session. Bob Allen, State Director for Adult Education in Texas, discussed with participants the plans for a CBAE practitioners workshop, held in Austin June 20-22.

Mr. Delker then led a discussion of the issue responses developed during the previous two days. The issue of possible negative benefits for CBAE from the K-12 educational community's efforts in minimal competency testing was discussed. The results of the discussion are reflected in the statement in Part I.

The Workshop was finally adjourned at noon, February 24.

## Appendix B. List of Participants

- Gweneviene Abramson—St. Thomas, Virgin Islands  
Curtis Alexander—Luling, La.  
Bob G. Allen—Austin, Tex.  
Robert Arceneaux—Lafayette, La.  
Sylvia Baltar—Hato Rey, Puerto Rico
- Michael P. Benway—Lafayette, Ind.  
George Bertrand—Baton Rouge, La.  
James Black—Moscow, Idaho  
Luther H. Black—Little Rock, Ark.  
George Blassingame—Dallas, Tex.
- Linda Bond—Sacramento, Calif.  
John Boulmetis—Kingston, R.I.  
Bobby Boyet—Baton Rouge, La.  
Clyde Bradley—Drumright, Okla.  
John S. Brennan—Denver, Colo.
- Jerry Browder—Richmond, Va.  
J Ned Bryan—Washington, D.C.  
Nerissa Bryant—Monroe, La.  
Elizabeth Buckley—Great Neck, N.Y.  
John A. Caserta—Reno, Nev.
- Apolinario Castro—Hato Rey, Puerto Rico  
Richard Causey, Jr.—Montgomery, Ala.  
Bayard Clark—Washington, D.C.  
Sherwood W. Clasen—St. Paul, Minn.  
Arthur Clawson—Pocatello, Idaho
- Steward Collins—Mansfield, La.  
Frank Commander—Columbia, S.C.  
Gary Conti—Springfield, Ill.  
Ted Cook—Frankfort, Ky.  
James Corbett—Kalispell, Mont.
- Thelma Cornish—Baltimore, Md.  
Anita Cullen—Luling, La.  
Lester V. Cziok—Minneapolis, Minn.  
Sam Dauzat—Ruston, La.  
Dolores Dean—Washington, D.C.
- Paul V. Delker—Washington, D.C.  
Tom R. Dudley—Raleigh, N.C.  
J. K. East—Columbia, S.C.  
Lake Easter—Nashville, Tenn.  
Jimmy Ellis—Gretna, La.
- William Farrell—Providence, R.I.  
Joan Fischer—Worcester, Mass.  
Lucille Fischer—St. Paul, Minn.  
Harlan L. Ford—Austin, Tex.  
Gerardo Franciosa—Niagara Falls, N.Y.
- C. B. Garrison—Fort Smith, Ark.  
John Giese—Missoula, Mont.  
Wayne E. Giles—Springfield, Ill.  
Bonnie Gioello—Council Bluffs, Iowa  
Diane Girard—Dayton, Ohio
- Harold Goff—Boise, Idaho  
Glenn Gossett—Baton Rouge, La.  
Charles Greenhow—Elko, Nev.  
Mary A. Grefe—Des Moines, Iowa  
Sallie Grimes—Washington, D.C.
- Tom Grisby—Corvallis, Oreg.  
Jack Grisham—Philadelphia, Pa.  
Brent H. Gubler—Salt Lake City, Utah  
David Haggerty—Grand Forks, N. Dak.  
James Hardison—San Diego, Calif.

Marvin Hartig—Evansville, Ind.  
Catherine Havrilesky—Trenton, N.J.  
Melinda Haynes—Las Vegas, Nev.  
Grace Hewell—New York, N.Y.  
Leonard R. Hill—Lincoln, Nebr.

Roger C. Hill—St. Thomas, Virgin Islands  
Wanda Hole—Milwaukee, Wis.  
Heyward Hornsby—Columbia, S.C.  
Johnny Howard—Oklahoma City, Okla.  
Helen Huff—Boise, Idaho

Myrna G. Hugi—Washington, D.C.  
Carolyn Irving—Dayton, Ohio  
Jim Johnson—Baton Rouge, La.  
Sterling Johnson—Phoenix, Ariz.  
Sharon Jones—Washington, D.C.

Nora F. Kerr—Montpelier, Vt.  
Lynna Klem—Glassboro, N.J.  
Lowell Knight—Charleston, W. Va.  
Barbara Korpi—Dickenson, N. Dak.  
William Kramedas—Newark, Del.

Frank Lawrence—Washington, D.C.  
Alvin Leach—Salem, Oreg.  
Willard W. Lee—Topeka, Kans.  
Scott C. Lehman—Warren, Ohio  
Elliot Lethbridge—White Plains, N.Y.

James LeVine—Honolulu, Hawaii  
Edward Lindsey—Tucson, Ariz.  
Donna Lockard—Portland, Oreg.  
Carroll Londoner—Richmond, Va.  
Elvin Long—Jefferson City, Mo.

Joe Lutjeharms—Lincoln, Nebr.  
Buddy Lyle—Austin, Tex.  
Thornton Lynam—Georgetown, Del.  
Erwin J. MacDonald—Augusta, Maine  
Tom Mann—Iowa City, Iowa

Suellen Marcott—Lafayette, La.  
Diane Marinelli—Venice, Ill.  
Charlotte Martin—Madison, Wis.  
Donald Martin—Gorham, Maine  
Phyllis Martin—DeRiddle, La.

Robert Marshall—Washington, D.C.  
Ethel K. Matthews—Harrisburg, Pa.  
Pete Mauritsen—Eureka, Mont.  
Hugh A. McCorkle—Agana, Guam  
David S. McCullough—Augusta, Maine

Donald A. McCune—Sacramento, Calif.  
Susan Mielice—Missoula, Mont.  
Mae Mitag—Lansing, Mich.  
Jerry Miller—Washington, D.C.  
Kenneth H. Mills—Kenosha, Wis.

Roy B. Minnis—Denver, Colo.  
Richard Mitchell—Oklahoma City, Okla.  
Lana Muraskin—Washington, D.C.  
Ruth Niekse—Ithaca, N.Y.  
Jerry O. Neilsen—Carson City, Nev.

Clifford C. Norris—Salem, Oreg.  
Norvell Northcutt—Austin, Tex.  
James T. Parker—Washington, D.C.  
Bob Pierce—Huntsville, Tex.  
Felix Rabauliman—Saipan, Mariana Islands

Gerald Randall—Kansas City, Mo.  
Mary Reiss—Albany, N.Y.  
Richard Ricker—Worcester, Mass.  
Mary Rogers—Lansing, Mich.  
James Roth—Springfield, Ill.

Marcus Ruger—Broomfield, Calif.  
John E. Ryan—Hartford, Conn.  
Ted Schilling—East Baton Rouge, La.  
Aileen Schlef—Washington, D.C.  
M. Eldon Schultz—Chicago, Ill.

Jack Scott—Great Falls, Mont.  
Vivian Scull—Denver, Colo.  
Barry Semple—Trenton, N.J.  
Milton Shaun—Bountiful, Utah  
Elaine Shelton—Austin, Tex.

John E. Sideris—Concord, N.H.  
Charles Stalford—Washington, D.C.  
Lucy Stromquist—Denver, Colo.  
Paul Taylor—New York, N.Y.  
John Tibbets—San Francisco, Calif.

Carroll Towey—Boston, Mass.  
Thomas Trujillo—Santa Fe, N.M.  
Gene Tucker—Washington, D.C.  
Bob Walden—Montgomery, Ala.  
Eugene Wheeler—Oklahoma City, Okla.

Dorothy Westby Gibson—San Francisco, Calif.  
Mary G. Williams—Indianapolis, Ind.  
Gilbert Woolard—Camden, S.C.  
Roger Worthington—Raleigh, N.C.  
Mary Wright—Lafayette, La.  
John K. Wu—Ludlow, Vt.