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THE FUTURE OF CONSUMER COOPERATION: THE NEW WAVE

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Abstract

The "new wave" of consumer cooperatives emerging in the past decade is described and differentiated from older consumer cooperatives by organizational characteristics. The economic advantages and disadvantages of these characteristics are analyzed, and the implications for growth and survival of these cooperatives and for public policies affecting consumers are discussed.

The cooperative movement which has experienced in the past century turbulent cycles of growth and decline, has inspired equally cyclical yet intense interest on the part of social critics and researchers from a variety of disciplines. The flexibility and fluidity of the cooperative form of organization has limited the ability of academic researchers to focus rigorous analytical tools on the cooperative experience: exceptions are well established institutional structures such as the Yugoslavian firm (Ward, 1958) and the agricultural marketing cooperatives of the U.S. (Helmerger and Hoos, 1962). Consumer cooperatives in the U.S. have lacked both stability and structure, and as an institution have not been tractable to the tools of economic analysis. The resurgence of consumer cooperatives in the 1970's and the consequent renewal of academic interest (Anderson, Porter, Maurice, 1979) has created both an opportunity and a need for economic analysis of the consumer cooperative and its relationship with consumer goods markets and the economy.

Growing out of the political activity and cultural divisions of the late 1960's the cooperative movement has spawned a so-called "new-wave" of cooperative organizations. Current estimates are that at least 3,000 such cooperatives with perhaps 500,000 members are operating in the U.S. Although there is considerable variety in the types of activities these cooperatives have undertaken, the focal point of the movement has been on food cooperatives. This discussion will therefore deal primarily with food cooperatives and ancillary activities in which they engage.

Initially highly variable in structure, viability and objectives these new cooperatives are showing signs of stabilizing as a movement, although the failure rate of individual organizations remains very high. While not yet mature as an institution, certain characteristic types of organizations and methods of operation now dominate the new wave cooperatives. Consequently it is possible to clarify the similarities and differences between new wave cooperatives,

the older consumer cooperatives and non-cooperative industrial organizations, and to analyze the structure, conduct, and performance of consumer cooperatives in the 1970's.

Characteristics of New Wave Cooperatives

To analyze the structure of the new wave of cooperatives, it is necessary to provide some background and identify the characteristics that distinguish the new wave from older cooperatives. Though both new and old cooperatives adhere generally to the principles of cooperation established by the Rochdale pioneers in the 19th century, new wave cooperatives interpret those principles loosely; in some cases they deviate substantially. Perhaps the most significant distinction is with respect to the principle that sales of consumer goods should be at market prices, with dividends paid in proportion to purchases. Most post-1965 cooperatives have chosen to sell below market price and provide direct savings to their members, with surcharges added to wholesale cost of the product to provide for operating costs of the cooperatives. Thus one of the principles which seems to have emerged is that the cooperatives should not only be non-profit in an accounting sense over the long run, but should also avoid generating an operating surplus from sales in the short run. Funds for expansion and capital improvement must come from grants, loans, contributions, or increases in the surcharge agreed upon by members for specific purposes.

This characteristic has a corollary in the formal organization of new wave cooperatives that distinguishes them from older cooperatives. Most older cooperatives are incorporated as stock cooperatives, where the members invest money and shares are issued to them. Most new wave cooperatives, if they are incorporated at all, are organized as membership cooperatives. Persons or households wishing to participate pay a membership fee annually or upon joining, and no stock is issued. In principle a patronage refund or rebate could be paid but in general they have chosen to pass savings on to members directly through lower prices. (The Food Cooperative Handbook Collective, 1975.)

A third distinguishing characteristic is the reluctance of new wave cooperatives to rely heavily on paid staff and management. As they expand it often becomes necessary to hire staff, but as a matter of principle these organizations generally prefer to use volunteer membership labor if possible. Where volunteer labor is insufficient they have often chosen to employ a staff composed of a paid "collective" of the membership. The collective makes decisions and

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performs the basic operations of the cooperative with assistance from volunteers.

While these three characteristics distinguish the new wave from older consumer cooperatives, there remains a wide range of organizational forms and methods of operation within this movement. The volunteer or collective direct savings, membership cooperative has evolved as a highly flexible and organizational form, and each of its variants has advantages and disadvantages. One of the principal distinctions is between the store cooperative and the cooperative that operates as a "preorder" or buying club, which may not even have a fixed distribution point. Preorders clearly are designed to be a smaller unit than stores, falling somewhere between the household and the supermarket in scale. But through the device of organizing into "blocks" or "branches" preorders in some cases have grown quite large (Curhan and Wertheim 1975). These block preorders handle the duties of purchasing and distribution on a rotation basis, with each block taking its turn as the "masterblock" for some specified period. The branch cooperative has a volunteer committee that purchases and distributes food for the entire cooperative, and does not rotate.

Another device which has been employed successfully to overcome diseconomies of small size, for both preorders and store cooperatives, is federation with similar organizations to fulfill shared needs. By no means unique to new wave cooperatives, they have used federation and cooperation between groups as a flexible vehicle for expansion without centralization. In its simplest form, a group of cooperatives can informally meet for political and educational purposes. At greater levels of complexity, cooperatives can form a federation which will handle ordering, buying, shipping and warehousing, and even processing (particularly milling and baking). In some cases large cooperatives and/or federations have taken up farming in order to internalize the primary source of supply.

An Economic Analysis of the "New Wave" Consumer Cooperative

The fundamental problem facing the cooperative is the conflict between the sociology of the cooperative and the economics of the industry in which it is engaged. Control in large organizations requires some degree of centralized decision-making, while the cohesion of the membership requires contact and communication. With few exceptions new wave cooperatives are too small to realize the economies of scale of a large supermarket; since the focal point of the consumer cooperative is savings its survival is constantly threatened because it lacks a competitive position in food marketing. Yet the experience of consumer cooperatives that have achieved stable control and large scale (for example in Sweden) indicates that the problems of control and decision making are soluble. The source of the difficulties experienced by the

new American cooperatives does not lie in the inability of large cooperatives to function, but rather in the inability of small cooperatives to grow.

Because analysts have concentrated on the system of decision-making and control unique to the cooperatives, the nature of the cooperative as a firm has been obscured. As a firm the cooperative buys and markets consumer goods, incurring costs and generating revenues. Its objective is to equate output price to average cost of production: Anderson, Porter and Maurice, 1979 have shown that if membership size is a decision variable, the cooperative will operate at the point where demand is forced through the point of minimum average cost. In reality, not only membership but the organizational form of the cooperative (i.e. preorder vs. store, and direct savings vs. rebate) becomes a decision variable. The complexity introduced by these additional variables provides an explanation, through the cost function, of why cooperatives experience great difficulty in expanding to realize economies of scale.

FIGURE 1: Short Run Cost Curves of Cooperatives Using Only Volunteer Labor

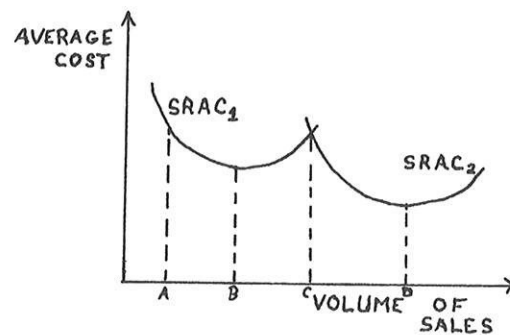


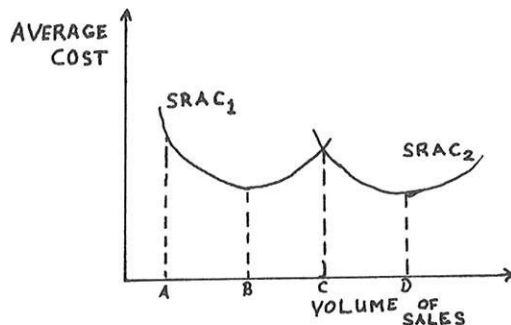
Figure 1 illustrates the position of an individual cooperative firm. If organized as a single unit preorder or buying club its initial position will be at point A, where if efficiently managed it will lie on the short run average cost curve (SRAC₁). By expanding membership it can fission into a block preorder and in equilibrium will be at point B, the minimum of SRAC₁. Further expansion, however, brings loss of control and inefficiency in decision-making with increased costs as a result. At point C it becomes more efficient to reorganize as a store, with the objective of expanding along SRAC₂ and achieving minimum cost at point D. Because of the "lumpiness", or indivisibility, of the organizational forms which underlie the two cost curves however it is not possible to move along a long run envelope of short run cost curves by gradually moving to slightly larger scales of operation. The worst case, at point C, may well be the position of the small storefront

cooperative with limited volume and selection, disenchanting membership, and no internal or external source of capital for expansion.

The alternative of beginning with a large store operation has proved to be extremely difficult because such an operation rarely can form the nucleus of a committed and dedicated membership which is required for success. Many such attempts at "top-down" organizing, especially in connection with urban poverty programs, have been attempted, and spectacular failure is the usual result.

An additional complication to the growth problem is introduced when the cost curves of the cooperative firm are adjusted to take into account the savings in labor costs realized by the volunteer-staffed small cooperative or preorder. In Figure 2, $SRAC_1$ is drawn on the assumption that all labor is volunteer while $SRAC_2$ assumes that the basic operations are performed by paid staff.

FIGURE 2: Short Run Cost Curves of Cooperatives Using Hired Labor to Expand



The "lumpiness" of the organizational forms becomes even more pronounced: the cooperative may have to achieve a large multiple of its present size (at A) before the economies of scale in purchasing, distribution and warehousing compensate for the cost of hired staff. Even if $SRAC_1$ were drawn to include an implicit wage, based on the opportunity cost of their time, for the volunteer staff, this cost structure might not be materially changed. The volunteer staff presumably are engaged in a form of moonlighting, and the wages earned by moonlighters are normally below the opportunity cost of their time in their primary job. (Grossman, 1975). Furthermore, the opportunity cost of time for the young, and for the elderly and retired, who are frequently an important component of cooperative staff, will be lower than the wages that would be paid to full-time staff.

The preference of new wave cooperatives for providing direct savings to their members rather than selling at market price with patronage refunds presents an additional obstacle to expansion. The traditional rebate cooperative

can expand by selling to non-members without obviously price discriminating at the point of sale. The direct savings cooperative must employ a system of differential surcharges for members and non-members (and sometimes for participating and non-participating members). This creates an additional management problem in setting a complicated system of surcharges at the right levels. It can also cause conflicts with the values and goals of the members, who often have strong feelings about equity and the social injustices of allowing people to substitute wealth for participation.

These obstacles to expansion have led cooperatives to seek integration through the supply system, either through federation or directly, as an alternative to expanding as a retail operation. Vertical integration is an attempt to shift the cost curve downward by eliminating the marketing margins between the farmer and the retailer. As a strategy it has a sound economic rationale, because gross margins in retailing, even if they could be eliminated altogether, are still only about 20% of sales (Earle, 1978). Much, if not most, of this gross margin cannot be eliminated. The farmer's share of the food dollar, however, is a relatively small component of food cost. Most new wave cooperatives have intense interest, not only for economic but ideological reasons, in eliminating the middleman's share. Direct marketing of produce, grains and sometimes meats, or at a minimum purchasing from terminal markets are fundamentals of most cooperative operations. To carry a full line of products, however, including those processed goods for which the farm to retail margin is highest, requires a degree of vertical integration that most new wave cooperatives have not achieved. Some have begun to explore linkages with the traditional consumer cooperatives who have developed that capacity, but in general they have not yet established a competitive position in the food supply system.

Public Policy Issues

There are several issues of public policy with regard to the way these new wave cooperatives interact with the rest of the economy, what (if any) impact they are likely to have on non-cooperative industry, and how the economy will affect them. At the present time this cooperative movement is much too small to have much economic impact. It has been estimated that, for the Boston area, they make up less than one-tenth of one percent of sales in retail foods (Curhan and Wertheim, 1975). If the movement grows, however, the preference of new wave cooperatives for the direct savings rather than rebate type of cooperative organization could lead to a change in the competitive structure of the market. It is likely that if substantial growth of successful direct savings cooperatives were to occur it would stimulate aggressive response by the food industry. Certainly competitive pressure would be exerted on retail food markets, and the likelihood of its becoming a public policy issue is greatly increased by

the highly visible discounting practiced by direct savings cooperatives, which contrasts sharply with the uncertainty of patronage refunds. Recent attacks on agricultural cooperatives and the anti-trust exemptions they enjoy illustrate that the current attitude of industry and policymakers toward consumer cooperatives, ranging from indifference to benevolence, is probably more a function of their non-threatening market position and obvious flaws than of real enthusiasm. Where traditional consumer cooperatives have had the capacity to actively threaten existing markets, as did the Berkeley Cooperative when it cut milk prices in 1976, established interests have responded forcefully. Although the movement is currently struggling with its own internal problems, it should be noted that in the event of its success the potential for substantial external conflict exists.

A second set of issues relates to how changes in the economy affect the new cooperative movement. Cotterill, (1978) has documented the increasing concentration of the retail food industry, and pointed out how this can act as a stimulus to competitive alternatives like consumer cooperatives. Another factor, however, is inflation, which has been rapid for food in the 1970's. Not only does the pressure on household budgets exerted by food price increases stimulate the search for low cost alternatives to existing food buying practices by consumers, but it also affects the type of alternative sought. In the case of the cooperative alternative, inflation favors the direct savings form of cooperative over the traditional dividend cooperative.

It is significant to note that most of the older traditional cooperatives are survivors of a movement that began in the 1920's and 1930's, a period of generally stable or falling prices. The new cooperatives, by contrast, were formed in the period since 1969, when prices were rising. This may be a partial explanation of their choice of the direct savings rather than rebate method of operation. The rebate cooperative holds surpluses generated by its operations for as long as a year before returning the surplus to members via patronage refunds. This was seen as a major virtue of the cooperative by the Rochdale Pioneers, for whom the cooperative was a vehicle for helping its low-income members accumulate savings. In times of rapid inflation, however, a cooperative which operates as a net debtor to its members has little attraction. To the extent that the cooperative uses that surplus to internally finance capital improvements, the cooperative itself is also hurt by inflation, and the probability that the buying power of the surplus will be eaten up by inflation before it can be used to finance long run cost-decreasing improvements is also increased. The direct savings cooperative, by contrast, tries to maintain a balanced account with its membership at all times, and the members can derive immediate benefits via direct savings. They do not become net creditors to the cooperative, and therefore do not incur additional costs as a

result of inflation. A further advantage of the direct savings model is that the savings do not constitute income and therefore are not taxed; with the rebate cooperative the dividends would be taxable.

The tax system creates additional incentive to organize cooperatives that rely on volunteer labor rather than paid staff. By utilizing volunteers, the cooperative remains outside the tax system as part of the informal or "barter" economy. The employer pays no payroll taxes, and the employee pays no income tax. The benefits of participation in the cooperative could make volunteer labor in exchange for savings on food budgets an attractive moonlighting occupation, when compared to alternative after tax income opportunities. (This reinforces the reasoning behind the set of cost curves of Figure 2). Even where paid staff is employed, some cooperatives attempt to retain these tax benefits by employing them as "consultants", or some similar ploy, to evade payroll taxes. Since cooperatives are normally incorporated as non-profit organizations they enjoy tax advantages in any case: in the event that cooperatives capture a significant share of retail markets, these considerations are likely to be an additional source of external conflict with their competitors, with policy-makers, and with the system of public finance.

Conclusions

The conclusion of this analysis must be, for one, that the new wave of consumer cooperatives faces many problems if it is to become a significant force in the marketplace rather than a social ideal. The new cooperative movement is severely limited in scope, with small volume of sales relative to its non-cooperative competitors, and a large but still not economically significant number of members. Few cooperatives have succeeded in providing the full line of retail goods which could bring their members completely into the cooperative and out of other retail markets, and thus maximize the cost savings potentially available to individual members through cooperative buying. There are organizational problems which become especially severe when cooperatives attempt to expand. In the event that the movement could expand successfully, there is a high probability that external conflicts would result from the activities of cooperatives in the market place.

Given these caveats, however, we also have shown that the new wave cooperative has proved to be quite adaptable to its economic environment.

The types of organizations and methods of operation which have evolved in the cooperative organized since 1969 have been consistent with, and responsive to, the changes in price levels and increasing tax burden that characterized the economy during that period. This is an objective indication that there may be a sufficiently pronounced vein of economic pragmatism in the new cooperative movement to carry these

organizations through the difficulties they will face in surviving and growing. The flexibility they have developed may indicate that there is an innate resilience to the movement - though not necessarily to individual organizations - that will enable it to further evolve and become a fully competitive alternative institution within the food supply system.

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CONSUMER TASK DATA BASE FOR COMPETENCY-BASED
CONSUMER EDUCATION DELIVERY SYSTEMS

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Abstract

A consumer task list was constructed and then validated by an interdisciplinary jury using a modified Delphi technique. The list in questionnaire form was submitted to three groups for assessment of task importance and standards for high school graduates. Selected consumers and consumer education teachers attached significantly different degrees of importance and minimum task standards for high school graduates to some consumer task categories.

Introduction

Several problems must be resolved before schools can produce graduates who are not only efficient producers but efficient consumers as well. A central problem is how best to organize a consumer education curriculum--one which will produce literate consumers who can operate efficiently in a complex economic and social environment yet one which meets the individual student's needs and abilities. The challenge is no longer gaining acceptance for consumer education but rather designing comprehensive and appropriate programs (Uhl, 1971). One delivery system is competency-based instruction, which is an outgrowth of the systems concept of curriculum design and implementation. The primary aim of this study was to develop the data base for a competency-based consumer education curriculum.

Statement of the Problem

This study is grounded in a statement made by the Policies Commission for Business and Economic Education (1976):

About competency-based education, we believe that:

1. Studies in business education support the thesis that tasks can be identified through research.
2. Identification of tasks performed by business workers and by consumers is the first step in the formulation of competencies. Determination of each standard or range of standards is the second step in order to convert each task to a competency.

Although the curriculum guides and literature of consumer education contain many different compilations of student goals, expectations, outcomes, objectives, and so forth, "no definitive studies identifying competencies in consumer education have been published" (Popham, Schrag, Blockhus, 1975).

In order to construct a list of consumer competencies, however, consumer tasks must be identified and validated; then task importance and task standards must be determined. From this base a consumer competency list could be developed and the foundation for competency-based consumer education laid.

The purpose of this study was, therefore, twofold--first, to construct and validate a list of consumer tasks which consumers perform in their everyday lives; and, second, to assess task importance and task standards for this list. By comparing the perspectives of consumer education teachers and selected consumers on task importance and minimum task standards for high school graduates, the relative importance of each was ascertained which could be incorporated into competency-based or traditional consumer education programs.

In the assessment stage, answers to these research questions were also sought:

1. Do consumer education teachers classified by departmental affiliation (business education, home economics, and social studies) and selected consumers differ in their assignment of consumer task importance and their recommendation of minimum consumer task standards for high school graduates?
2. Do these subgroups of consumer education teachers differ in their assignment of consumer task importance and their recommendation of minimum task standards?

This stage involved the development of a consumer task rating questionnaire and its administration to two groups of consumer education teachers and to a group of selected consumers. Answers to the two questions posed above were sought through the formulation and testing of two hypotheses.

Procedures

These procedures were employed to develop the consumer task list and to determine task importance and task standards for high school graduates.

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Construction and Validation of Consumer Task List

A review of the literature revealed that few studies had been conducted in the area of consumer competencies, and no studies have been completed using the term consumer competency as it was defined in this study, i.e., a task performed to a stated standard. The Metzzen (1963) study is the most comprehensive but dates from 1963 and was restricted to determining the importance of consumer competencies for young women. Moreover, these competency statements were stated in terms of "knowing" and "knowing how to do" although the ability to perform at a level of proficiency was implied. The present study dealt specifically with consumer tasks which were stated at the application level, not at the comprehension or knowledge levels. The competencies identified by Murphy, et al. (1974), are of more recent origin but cover only consumer education process competencies. Therefore, since no adequate consumer competency or task list existed, one was constructed and validated.

Sixteen consumer education curriculum guides, content lists, and studies were identified and used as a consumer education content base. Each of the sixteen sources was studied; and, using criteria for task construction, the consumer education content was distilled into the draft of the consumer task list. A six-person, interdisciplinary consumer task evaluation jury assisted in the validation of the consumer task list using a modified Delphi technique which consisted of three juror evaluations and revisions. After data collection, the jury evaluated additions to the consumer task list made by questionnaire respondents. The consumer task list composed of 39 task statements arranged in 18 task categories by consumer education subject matter is shown in Table 1.

Assessment of Task Importance and Task Standards

The literature review indicated that, although the content of consumer education is quite diverse, there is considerable agreement about what is deemed appropriate content for consumer education. Still, gaps and redundancies do exist, indicating the need for establishing content priorities in consumer education. In the case of competency-based consumer education, these priorities need to be delineated in terms of consumer tasks and task standards. For this reason, the consumer task list was submitted to three groups for assessment of task importance and the recommendation of minimum task standards for high school graduates. Members of the Delaware Valley (Pennsylvania) Consumer Sounding-Board provided a broad-based selected consumer population. Two populations of consumer education teachers in Montgomery (suburban) and Philadelphia (urban) counties were identified in the public secondary schools in the departments of business education, home economics, and social studies using a topical definition of consumer education teacher. Urban consumer education teacher names were provided by the Consumer Affairs Division of the School District of Philadelphia. Suburban consumer education

teachers were identified through their high school principals and department heads.

Task importance and standards data were gathered by questionnaire. The data collection instrument called for two independent, structured, scaled responses. First, the respondent was asked to rate the importance of each of the 39 consumer task statements for high school graduates on a five-point scale ("Essential" to "Not Important"). Second, the respondent recommended minimum task standards for high school graduates on a three-point scale indicating one of three levels of task achievement ("Application," "Comprehension," or "Awareness"). Respondents could also add and rate consumer task statements which were not included in the task list. After pilot testing of the questionnaire, data were collected by mailed questionnaire from 78 suburban consumer education teachers (80 percent response rate) and 36 urban consumer education teachers (75 percent response rate). Data from 21 selected consumers were secured through administration of the questionnaire by the investigator.

Consumer task importance and standards means were calculated for the 39 task statements and the 18 task categories. At both the task statement and category levels, consumer task lists ranked in descending order by task importance means and by task standard means were constructed for the three groups and six teacher departmental subgroups.

To answer the research questions posed by this study, two null hypotheses were formulated and tested for each population of consumer education teachers (classified by the three departmental areas) and selected consumers on each of the 18 consumer task categories using the Kruskal-Wallis One-Way Analysis of Variance by Ranks with a rejection level set at .05.

For those task categories where significant differences in ratings were found, post hoc analyses were conducted to determine where the differences lay. Dunn's multiple comparison procedure based on the Kruskal-Wallis statistical analysis was employed to ascertain significant differences in task category ratings at the .05 level and the direction of those differences (1) between selected consumers and each subpopulation of consumer education teachers in each county classified by department area and (2) between subpopulations of consumer education teachers in each county.

Findings

The consumer task importance data were analyzed at the category level to test the following null hypothesis:

- H₁ There is no significant difference in the rating of consumer task importance for high school graduates among the selected consumer group and each subgroup of consumer education teachers

Table 1

Consumer Task List

<u>Task Category</u>	<u>Task Statement*</u>
	A Consumer Should Be Able To...
1. Valuing	1. Make choices when carrying out consumer activities which consider what is important to the consumer and his/her family.
2. Decision-making	2. Use decision-making and problem-solving methods in carrying out consumer activities--in an orderly way, gather and study information about a product before buying, for example.
3. Money Management	3. Plan and use a budget for his/her circumstances and goals.
4. Purchasing--General	4. Apply effective <u>general</u> buying and use practices to goods and services--compare quality, quantity, and price before buying; use a shopping list; study ads; for example.
5. Purchasing--Specific	Apply effective <u>specific</u> buying and use practices to... 5. ...food--use cents-off coupons, for example. 6. ...clothing--judge how well an item of clothing is made, for example. 7. ...household furnishings and appliances--know what features to consider when buying a refrigerator, for example. 8. ...transportation--how to buy a used car, for example. 9. ...housing--decide whether to rent or buy a home, for example. 10. ...drugs and cosmetics--determine which over-the-counter cold remedies are helpful and which are a waste of money for example. 11. ...leisure-time goods and services--how to plan a vacation, for example. 12. ...services--how to select a plumber, lawyer, doctor, or hospital, for example. 13. ...education services--how to select a vocational school or college, for example.

Table 1 (Continued)

Consumer Task List

<u>Task Category</u>	<u>Task Statement*</u>
	A Consumer Should Be Able To...
6. Consumer Information	14. Judge and use buying information--advertising, mass media, labels, grades, product rating reports, business and government publications, etc.
7. Credit	15. Use credit effectively to buy goods and services. 16. Use appropriate procedures in handling credit--applying for credit, keeping credit records, and making payments, for example. 17. Demonstrate an understanding of the importance of establishing and maintaining a satisfactory credit rating.
8. Consumer Rights and Responsibilities	18. Recognize and protect himself/herself against fraudulent and deceptive practices encountered in consumer activities. 19. Use the aid and protection from government, business, and independent agencies and organizations to find solutions to consumer grievances and problems. 20. Demonstrate consumer responsibility in consumer activities--such practices as handling merchandise properly, using customer services only as needed, not shoplifting, dealing honestly. 21. Participate as an active citizen in consumer affairs--voting, evaluating consumer issues and laws, working with consumer organizations, etc. 22. Use understanding of law in consumer situations--read and understand contracts (like installment contracts, leases, insurance policies) before signing, compare terms of warranties, for example.

*Including any illustrative example(s) of subtask(s).

Table 1 (Continued)

Consumer Task List

<u>Task Category</u>	<u>Task Statement*</u>
	A Consumer Should Be Able To...
8. Consumer Rights & Responsibilities (Continued)	23. Seek legal assistance when necessary to interpret, negotiate, and enforce consumer rights.
9. Insurance	24. Plan and evaluate periodically a <u>life and health insurance</u> program with the help of an insurance agent or counselor to meet present and future needs.
	25. Plan and evaluate periodically a <u>car and property insurance</u> program with the help of an insurance agent or counselor to meet present and future needs.
	26. Use appropriate procedures for carrying out an insurance program--buying insurance, selecting agents, paying premiums, filing claims, etc.
	27. Applying an understanding of social insurance programs to financial planning--social security, medicare, unemployment compensation, etc.
10. Savings and Investments	28. Develop and carry out a savings and investment plan to meet financial needs and goals with an investment counselor if necessary.
11. Banking	29. Maintain a checking account.
	30. Use banking and financial services available to consumers other than checking accounts--safe deposit boxes, loans, travelers checks, etc.
12. Consumer Economics	31. Applying understanding of economic principles to part he/she plays as a consumer, worker, and citizen--how goods and services are made, priced, and distributed to consumer; inflation; economic systems; etc.

Table 1 (Continued)

Consumer Task List

<u>Task Category</u>	<u>Task Statement*</u>
	A Consumer Should Be Able To...
13. Taxation and Public Spending	32. Compare cost of taxes to the benefits of government services and exercise his/her duty to lower costs and increase benefits of government--voting intelligently, realizing taxes are price paid for services government provides, for example.
	33. Prepare necessary tax forms with qualified assistance if necessary.
14. Employment and Earning	34. Plan and prepare for a job or career appropriate to his/her interests and abilities.
	35. Obtain and advance on job or career of choice.
15. Consumer Mathematics	36. Apply math skills to consumer activities--compare credit costs, use a checking account, figure take-home pay, for example.
16. Environment	37. Apply appropriate procedures to selecting, using, and disposing of consumer products to reduce harmful effects on the environment.
17. Consumer Health and Safety	38. Apply nutrition, fitness, and safety knowledge to consumer activities to maintain good health and safety--provide a balanced diet, have medical checkups, buy safe products and use them properly, etc.
18. Estate Planning	39. Demonstrate an understanding of the importance of wills and estate planning in financial planning.

in the departments of business education, home economics, and social studies.

H₁ was accepted for 14 of the 18 consumer task categories when tested on task importance data from selected consumers and suburban consumer education teacher subgroups classified by departmental affiliation as can be seen in Table 2. That is, there was no significant difference in consumer task importance ratings on these 14 categories between (1) the selected consumer group and each subgroup of suburban consumer education teachers and (2) each subgroup of suburban consumer education teachers when compared to each other.

Conversely, H₁ was rejected for four task categories:

- No. 2--Decision-making
- No. 4--Purchasing--General
- No. 8--Consumer Rights and Responsibilities
- No. 17--Consumer Health and Safety

That is, for these four categories there was a significant difference in consumer task importance ratings among the selected consumer group and suburban teacher subgroups. Post hoc analyses determined where the differences lay and their direction.

Selected consumers rated Consumer Task Categories No. 2--Decision-making, No. 4--Purchasing--General, No. 8--Consumer Rights and Responsibilities, and No. 17--Consumer Health and Safety significantly higher than did suburban consumer education teachers in business education departments. For only Task Category No. 8--Consumer Rights and Responsibilities did selected consumers and home economics consumer education teachers differ significantly with selected consumers rating it higher. No differences were revealed between selected consumers and consumer education teachers in social studies departments.

When importance ratings between consumer education teacher subgroups were compared, only one significant difference was discovered. The home economics subgroup rated Task Category No. 17--Consumer Health and Safety higher than the business education subgroup.

H₁ was accepted for all 18 of the consumer task categories when tested on task importance data from selected consumers and urban consumer education teacher subgroups. (See Table 2.)

The following null hypothesis was tested on the consumer task standard data at the category level:

- H₂ There is no significant difference in the minimum standard recommendation for consumer tasks for high school graduates among the selected consumer group and each subgroup of consumer education teachers in the departments of business education, home economics, and social studies.

As Table 2 shows, H₂ was accepted for ten consumer task categories when tested on task importance data from selected consumers and suburban consumer education teacher subgroups. H₂ was rejected for the remaining eight consumer task categories:

- No. 2--Decision-making
- No. 6--Consumer Information
- No. 8--Consumer Rights and Responsibilities
- No. 11--Banking
- No. 12--Consumer Economics
- No. 13--Taxation and Public Spending
- No. 14--Employment and Earning
- No. 17--Consumer Health and Safety

Post hoc analyses revealed that, where significant differences existed, selected consumers rated task categories higher in all cases than each departmental subgroup of suburban consumer education teachers. The group of selected consumers rated Task Categories No. 2--Decision-making, No. 6--Consumer Information, No. 11--Banking, and No. 17--Consumer Health and Safety higher than the business teacher subgroup; No. 8--Consumer Rights and Responsibilities, No. 12--Consumer Economics, and No. 13--Taxation and Public Spending higher than the home economics teacher subgroup; and No. 14--Employment and Earning higher than the social studies teacher subgroup.

When suburban consumer education teacher subgroups were compared to each other, significant differences were found on three consumer task categories. Task Category No. 17--Consumer Health and Safety was rated higher by home economics teachers than business education teachers. The social studies teacher subgroup rated Task Category No. 6--Consumer Information higher than the business education subgroup, and social studies teachers rated Task Category No. 13--Taxation and Public Spending higher than the home economics subgroup.

Table 2 reveals that H₂ was accepted for 14 of the consumer task categories when tested on task importance data from selected consumers and urban consumer education teacher subgroups. Post hoc analyses were applied to the following four task categories on which H₂ was rejected:

- No. 7--Credit
- No. 9--Insurance
- No. 11--Banking
- No. 17--Consumer Health and Safety

When the selected consumer group was compared to each of the three subgroups of urban consumer education teachers, significant differences in ratings were present for three consumer task categories. Business education teachers rated Task Category No. 11--Banking higher than selected consumers. This is the only time that a teacher subgroup in either teacher group rated a task category significantly higher than the selected consumer group. Selected consumers rated Task Category No. 9--Insurance higher than the home economics teacher subgroup, and selected consumers also rated Task Category No. 17--Consumer Health and Safety higher than the social studies teacher subgroup.

Table 2

Kruskal-Wallis Levels of Significance For Selected Consumers
and Teacher Subgroups by Consumer Task Category Ratings

Task Category	Task Importance (H ₁)		Task Standards (H ₂)	
	Consumers/ Suburban Teacher Subgroups	Consumers/ Urban Teacher Subgroups	Consumers/ Suburban Teacher Subgroups	Consumers/ Urban Teacher Subgroups
1. Valuing . . . . .	.3282	.7485	.2212	.9750
2. Decision-making . . . . .	.0002*	.1166	.0187*	.1285
3. Money Management . . . . .	.0921	.2691	.2708	.5012
4. Purchasing--General . . . . .	.0013*	.3308	.1930	.3506
5. Purchasing--Specific . . . . .	.0734	.8433	.3308	.5336
6. Consumer Information . . . . .	.0545	.8897	.0157*	.2058
7. Credit . . . . .	.7206	.4364	.4667	.0242*
8. Consumer Rights and Responsibilities . . . . .	.0258*	.2987	.0075*	.1361
9. Insurance . . . . .	.9741	.5882	.2413	.0457*
10. Savings & Investments . . . . .	.0788	.1095	.3556	.2665
11. Banking . . . . .	.1204	.0675	.0314*	.0091*
12. Consumer Economics . . . . .	.0868	.7149	.0065*	.1491
13. Taxation & Public Spending . . . . .	.0554	.3667	.0013*	.1936
14. Employment & Earning . . . . .	.0854	.6037	.0260*	.6147
15. Consumer Mathematics . . . . .	.0753	.5348	.5473	.4881
16. Environment . . . . .	.4049	.8848	.1029	.4466
17. Consumer Health & Safety . . . . .	.0075*	.1061	.0008*	.0062*
18. Estate Planning . . . . .	.0978	.9458	.1197	.4330

*Indicates significant differences in ratings at .05 level.

Significant differences in rankings were noted for two consumer task categories when subgroups of urban consumer education teachers were compared to one another. Business education teachers ranked Task Category No. 7--Credit higher than home economics teachers. And, business education teachers ranked Task Category No. 11--Banking higher than social studies teachers.

This last finding derives from the analysis of the survey respondents' task additions to the consumer task list by the task evaluation jury. One hundred twelve respondents (83 percent) did not recommend additional task statements; twenty-three respondents (17 percent) added a total of 33 tasks. After consideration of the number, nature, and scope of the task additions, the jury generally agreed that the 39-item, 18-category consumer task list was relatively comprehensive and effectively communicated the intended task content. Therefore, the consumer task list was accepted without further revision.

Conclusions

This study in a preliminary manner has gathered consumer task importance and standards data from selected consumers and suburban and urban consumer education teachers from which certain

general conclusions and observations can be made.

1. Selected consumers and consumer education teachers attached significantly different degrees of importance and minimum task standards for high school graduates to some consumer task categories. More importantly, however, there was more agreement than disagreement among the selected consumer group and consumer education teacher subgroups.

2. Selected consumers and consumer education teachers showed more agreement on what consumer tasks are important for high school graduates than on what minimum standards of achievement should be applied to consumer tasks for high school graduates.

3. Urban consumer education teachers demonstrated greater agreement on consumer task importance and standards when compared to selected consumers than did suburban consumer education teachers. This might have been a function of the innate characteristics of each teacher group, such as teaching experience, educational background, age, or race, for example; or it might have been a function of the needs of the urban or suburban population each serves.

4. Where significant differences did exist between selected consumers and consumer education teachers, the differences occurred more often between selected consumers and teacher subgroups than between teacher subgroups compared to one another. Therefore, as might be expected, consumer education teachers categorized by departmental area were more alike each other than selected consumers. This might be attributed to the larger body of shared characteristics among the teacher subgroups than among the selected consumers and teacher subgroups.

5. For those areas of consumer activity where significant differences in consumer task importance and standards were revealed, selected consumers almost always rated importance and standards higher than teacher subgroups. Hence, where consumer education teachers and selected consumers disagreed, selected consumers were more demanding in their perceptions of what adequate consumer performance is for high school graduates than teachers were. This may result from a conflict between the harsh realities of functioning in a complex consumer environment as viewed by selected consumers and the equally disturbing student and curricular demands of the classroom environment as viewed by the consumer education teachers.

6. The 39-item consumer task list is a relatively comprehensive compilation of consumer activities. Moreover, the consumer task statements communicate effectively and clearly the intended consumer behavior at the task level.

Recommendations

1. The development and refinement of consumer education programs, whether traditional or competency-based, should proceed based on the findings of this and related studies.
2. The assessment of task importance and task standards for the consumer task list with a random sampling of consumer education teachers and consumers from a larger geographic area is urged.
3. Further delineation of the consumer task list and task data is needed on the subtask level.
4. Research should be conducted to ascertain how other groups with an interest in consumer affairs and consumer education (such as high school students and their parents, consumer affairs experts, or government officials) would rate consumer task importance and standards.
5. The effect of the socioeconomic, personality, and attitudinal factors on consumer task importance and standards ratings should be researched.
6. Studies should be conducted to determine the most appropriate and efficient delivery system for consumer competency development in various client populations.

Implications

Selected consumers and consumer education teachers do indeed set priorities for the development of consumer abilities. Consumer activities which possess greater utility for young people rate higher than those at which some degree of facility can be developed later. Furthermore, the priorities for the development of consumer abilities are not universal. Priorities must be set only after consideration of the needs and abilities of the student population for whom the curriculum is being designed.

This study potentially makes a contribution to improving the quality of consumer education in today's schools by providing an up-to-date, comprehensive, research-based consumer task list. This list represents current thinking on what consumer activities adults should be able to perform. The consumer task data may be useful in evaluating and improving consumer education inside and outside the school environment by succinctly specifying the broad range of consumer behavior. Thus, this study and other current research may facilitate the development of consumer education curricula--either competency-based or traditional--which are relevant to today's consumer situations.

Consumer educators need to set realistic priorities and determine standards of acceptable achievement based more on current research and less on past experience or intuition. Where there are legitimate differences of opinion these should be reconciled and reflected in consumer education curricula if schools are to play a significant role in developing well-informed skilled consumers.

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FACTORS ASSOCIATED WITH ACHIEVEMENT IN CONSUMER EDUCATION
BY PROSPECTIVE TEACHERS

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Abstract

A national assessment of 84 randomly selected institutions of higher education was conducted. The cognitive consumer education knowledge of 4,309 prospective teachers in all academic majors was tested. An exploratory analysis of these existing data was conducted in anticipation of a better understanding of some of the factors associated with achievement on the "Test of Consumer Competencies." Analysis of the 55-question test produced no identifiable factors other than "General Consumer Knowledge." The fourteen content areas on the test were unrelated and each question may in fact measure a separate and unrelated concept.

Prospective teachers should possess a certain level of competence in consumer education if they are expected to teach it. With data available from "A National Assessment of the Consumer Education Literacy of Prospective Teachers From All Academic Disciplines," (Garman, 1977) a study was conducted to ascertain relationships which might offer new insights regarding factors associated with achievement of prospective teachers in consumer education.

The Data Base

In July of 1977 "A National Assessment of the Consumer Education Literacy of Prospective Teachers From All Academic Disciplines," (Garman, 1977) was conducted. This was a project funded by the U.S. Office of Education and Virginia Polytechnic Institute and State University. The "Test of Consumer Competencies" (TCC) was the instrument used to ascertain consumer literacy (Stanley, 1975). Also, questions regarding demographics and other variables were asked.

A census survey was sent to 540 National Council for Accreditation of Teacher Education (NCATE) institutions and responses were received from 461 or an 85% response. In order to have a manageable and representative sample, the number of graduating seniors certifiable to teach was the indicator of size of the teacher education programs. The institutions were stratified into six size categories based on the number of certifiable graduates and each was requested to test a given number of their students. The result was 130 schools distributed randomly in each of the six size strata of 1 to 99, 100 to 199, 200 to 399, 400 to 599, 600 to 999, and 1000+. Of those 130 institutions, 84 participated or a 65% response. The final sample consisted of 3% of the total number of prospective graduating

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seniors at NCATE institutions across the United States.

Very specific instructions were sent to the participating institutions with the appropriate number of test booklets (both Form A and Form B of the test), a slightly modified Scholastic Testing Service answer sheet with demographic and other information printed on the front and back. This information included sex, date of expected graduation, eligibility for a teaching certificate, school level the student would be certifiable to teach, major, minor, college level consumer education courses completed, and father's occupation.

Of the 84 NCATE accredited institutions, 5,602 prospective teachers completed either Test Form A or B of the TCC. The Kuder-Richardson Formula 20 produced a reliability estimate of .73 for Test Form A and .69 for Test Form B. The mean scores were 32.35 for Test Form A and 32.99 for Test Form B, thus the tests were considered equivalent. Because of the equivalency of the tests, only the data from Test Form A (2,162 prospective teachers) was used for this study as a matter of convenience in interpretation.

The National Assessment Study provided a data bank that had the potential for further exploration which perhaps would result in a greater understanding of factors affecting achievement on the consumer education test. Numerous variables, and demographic data were identifiable as associated with high or low achievement on the TCC. Further, the degree of comprehension in consumer education of the prospective teachers in the various academic majors did vary according to the fourteen identifiable content areas. Those content areas were "Individual Consumer in the Marketplace," "Money Management," "Consumer Credit," "Housing," "Food," "Transportation," "Clothing," "Health Services, Drugs and Cosmetics," "Recreation," "Furnishings and Appliances," "Insurance," "Savings and Investments," "Taxes," and "The Consumer in Society."

Achievement by Content Area on the TCC
According to Selected Variables

Three problems of the "Factors Associated with Achievement in Consumer Education by Prospective Teachers" (Chase, 1980) are discussed here. The first problem investigated the relationship between achievement on each of the fourteen content areas on the TCC by each of the following variables: sex, socioeconomic status, geographic location of the college or university, level of teacher certification that the prospective teacher expected to hold, selected minor areas of study, completion of

consumer education related courses and the schools arranged by size as determined by the number who would be certifiable and graduate. A one-way analysis of variance was used to determine whether there was a significant difference between the percentage mean scores according to the selected variables by content area. Also, where there were more than two groups of variables, Duncan's multiple range test was used to determine pairwise differences among groups.

The first variable investigated was sex. When examining achievement by content area on the TCC according to sex, the males did significantly better than the females in seven of the fourteen content areas. These content areas were "Individual Consumer in the Marketplace," "Money Management," "Housing," "Food," "Transportation," "Insurance," and "Taxes." The females scored significantly better than the males in only the "Clothing" content area.

The second variable investigated was socioeconomic status. When examining achievement by content area on the TCC according to socioeconomic status divided into fourths, only the content area of "Recreation" differed significantly among the four groups (Group 4 was the highest). Duncan's multiple range test indicated a significant pairwise difference between Group 3 and both Group 2 and Group 1. This implies that the next to the highest socioeconomic status group of prospective teachers differed from each of the lower two groups in the content area of "Recreation." In an attempt to further explore socioeconomic status of the prospective teachers, the socioeconomic status groups were divided into tenths (Group 10 was the highest). Only the content areas of "Recreation" and "Housing" differed significantly among the ten categories. The Duncan's multiple range test applied to the percentage mean scores of the prospective teachers in the content area of "Housing" indicated significant pairwise differences between Group 6, a higher socioeconomic status of prospective teachers, and each of the slightly lower socioeconomic status Groups of 3 and 5.

The third variable investigated was the geographic region of where the prospective teachers attended college. Achievement by content area on the TCC according to the region where the prospective teachers attended college was examined. A significant difference among the five regions (Western, Mountain Plains, North Central, Southern and Eastern) occurred in nine of the fourteen content areas (Individual Consumer in the Marketplace, Money Management, Consumer Credit, Food, Furnishings and Appliances, Insurance, Savings and Investment, Taxes, and The Consumer in Society). In six of the nine content areas (Individual Consumer in the Marketplace, Money Management, Insurance, Savings and Investment, Taxes, and The Consumer in Society), the Western, Mountain Plains and North Central regions achieved higher percentage mean scores and there were also significant pairwise differences between these three regions and the Eastern and Southern region. This suggests that prospective teachers in the Western, Mountain Plains, and North Central regions had more

consumer knowledge in those six content areas. In the content area of "Consumer Credit," Eastern, North Central and Southern achieved higher percentage mean scores which produced significant pairwise differences indicating that these three regions had more consumer knowledge about "Consumer Credit" than the other two regions. In the content area of "Food," only the Western region did significantly better than the other regions pairwise.

The fourth variable investigated was the expected date of graduation for the prospective teachers. In examining the achievement by content area according to the expected date of graduation for the prospective teachers, "Taxes" was the only content area of the fourteen that showed a significant difference among the four categories of graduation dates (January-February, March-April, May-June, and July-August). When examining the mean scores, the highest mean score was achieved by those graduating in January-February and the mean score decreased as the graduation date was farther away.

The fifth variable investigated was the level of teacher certification that the prospective teacher expected to hold. Examining the level of teacher certificate that the prospective teacher expected to hold produced a significant difference in thirteen of the fourteen content areas (the exception being the content area of "Recreation"). The prospective teachers expecting to hold the secondary teacher certificate achieved the highest percentage mean score in thirteen of the fourteen content areas. The prospective elementary certificate holders achieved the highest percentage mean score in the remaining content area of "Clothing." Significant pairwise differences were also observed in thirteen of the fourteen content areas between the prospective teachers expecting to hold the secondary teacher certificate and the prospective teachers expecting to hold the elementary teacher certificate and those preparing to hold the elementary and secondary certificates.

The sixth variable investigated was minor area of study that was different than major. Achievement on the TCC by content area according to minor area of study that was different than major showed significant differences among the fifteen minors in the six content areas of "Consumer Credit," "Transportation," "Clothing," "Furnishings and Appliances," "Taxes," and "The Consumer in Society."

The seventh variable investigated was completion of consumer education related courses. When examining achievement by content area on the TCC according to the completion of consumer education related courses, eight content areas (Individual Consumer in the Marketplace, Money Management, Consumer Credit, Housing, Food, Transportation, Furnishings and Appliances, and Taxes) showed significant differences among the three categories of "No course," "One course," or "More than one course." In all cases, having one or more courses in consumer education related areas rather than no course resulted in the prospective teachers performing significantly better on the TCC in the above eight content areas. Prospective teachers having one or more of the nine identified consumer

education related courses (Consumer Economics, Consumer Education, Consumer Law, Consumer Problems, Family Economics, Family Finance, Home Management, Money Management, and Personal Finance) achieved higher scores in certain content areas according to the specific course taken; however, no pattern was discernible.

The eighth variable investigated was schools arranged by size based on the number of prospective teachers expected to graduate. When examining schools arranged by size by number of prospective teachers expected to graduate, only two of the fourteen content areas, "Consumer Credit" and "Insurance," showed significant differences among the six size categories of 1-99, 100-199, 200-399, 400-599, 600-999, and 1000+. In the content area of "Consumer Credit," the prospective teachers in schools of 100-199 and 400-599 scored significantly higher scores and differed pairwise from schools of 200-399. In the content area of "Insurance," the prospective teachers in schools of 400-599 scored significantly higher scores and differed pairwise from schools of size 100-199, 200-399, and 600-999.

Achievement by Major on the TCC as Mediated by Selected Variables

The second problem examined the relationship between major and achievement on the TCC as it is mediated by selected variables including sex, socioeconomic status, geographic location of the college or university and completion of consumer education related courses. A two-way analysis of variance was used for statistical analysis. The results of the interactions between majors and the other selected demographic variables was revealing. In all four variables tested (sex, socioeconomic status, geographic region, and consumer education related courses), knowing the major of the prospective teachers was apparently more strongly related to test scores than knowing the other variables.

However, it should be noted that the portion of variance attributable to any variable on this test was very low (never higher than .041). Furthermore, the portions of variance attributable to the variables are not additive since the variables are correlated. Thus, a large portion of the variance, on the TCC, may not be accounted for utilizing the variables collected in the National Assessment Study. This suggests that variables other than the nine demographic and other variables contributed to the difference in achievement on the TCC. This is not unusual for this type of test, given the demographic and other variables identified.

Factors Underlying the 55 Questions on the TCC

Third and last, the most important problem of this study was to explore which factors may have been underlying the 55 questions on the TCC as related to content area, level of difficulty of the question, and design of the question according to level of learning expected. The level of difficulty of the question was the mean score for each question. The level of learning expected

was determined by a subjective analysis of the verb in each question which is indicative of the cognitive levels of learning as defined by Bloom, et al. in A Taxonomy of Educational Objectives (1956).

It was expected that some or all of the fourteen content areas would be represented as identifiable factors. Prior to the factor analysis, several statistical tests were applied to the questions in an effort to search further for any possible relationship between difficulty of the questions and level of learning expected. A Pearson correlation was computed ($r = .182$). The t test of the ascertained degree of correlation was nonsignificant indicating no relationship between difficulty of the question and level of learning expected. To ascertain if the fourteen content areas were statistically separable and, in fact, supported the designation by content area, an average correlation of each question "within" a content area with the other questions in the same content area was determined. The results were average "within" correlations ranging from .097 to -.004, indicating little or no relationship. In addition, an average correlation "across" was computed for each question with all questions in the other content areas on the test. All the correlations "across" all content areas of the test were very low, ranging from .089 to -.011 indicating little or no relationships. To compare further the "within" correlation with the "across" correlation for each question, a sign test was applied to the 55 differences "within" minus the "across" differences, one such difference per item. This test also turned out to be statistically nonsignificant in that there were about as many positive as negative differences.

Finally, the factor analytic techniques, namely principal components, principal factors and image analysis, were applied to the 55 questions on the TCC. Those questions with loadings higher than .33 in Component I, Factor I and .30 for Image I were from a cross section of the fourteen content areas rather than loading on a particular content area or group of logically related content areas. In the principal component analysis, Component I had loadings higher than .33 in eleven of the fourteen content areas, Principal Factor I in nine of the fourteen content areas, and Image Factor I in six of the fourteen content areas. These represented a variety of content areas rather than any particular content area or combination of related content areas. The other components and factors had very few high loadings. Consequently, the only interpretation possible was that there were no identifiable factors other than that of "general consumer knowledge."

The fourteen content areas may be validly related but the statistical analysis of this study shows that the questions are not related by content area. This suggests that the questions within one area are related by content area in name only. This may have occurred because the questions in each content area do not overlap other questions in that content area implying that each question tests a particular concept. Thus, knowing one

concept does not mean the test taker would necessarily know the other concepts in that content area. The TCC may measure consumer knowledge reliably, but to imply that a relationship exists with or between the content areas has not been affirmed in this study.

In conclusion, it should be pointed out that the portion of variance attributable to any variable on this test was very low (never higher than .041). Furthermore, the portions of variance attributable to the various variables are not additive since the variables are correlated. Thus, a large portion of the variance on the TCC may not be accounted for utilizing the variables collected in the National Assessment Study. Further, it should be noted that any speculations regarding achievement in the content areas on the TCC by the eight variables (sex, date of expected graduation, eligibility for a teaching certificate, school level the students would be certifiable to teach, majors, minor, college level consumer education related courses taken, and father's occupation) may not be accurate because the factor analysis findings suggest that the fourteen content areas are unrelated and that the individual questions may in fact be measuring separate and unrelated concepts.

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RESOURCE SYSTEMS FOR CONSUMER EDUCATORS

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Abstract

This paper is a report of an internal research study conducted by the Consumer Education Resource Network (CERN) to discover the status of existing resources which disseminate information to consumer educators.

These resources include clearinghouses, computerized data bases, resource centers, public agencies or offices and private organizations and associations. The study by CERN of these existing systems and previous formal needs assessments provided an overall picture of what was available and in general what is needed in consumer education.

This analysis of existing systems raised a number of issues which have and will continue to effect CERN's role as a facilitator of consumer education efforts. These issues are also explored in this paper.

The Consumer Education Resource Network (CERN), funded by the Office of Consumers' Education (OCE) began operation on October 1, 1978 under contract to InterAmerica Research Associates, Inc. CERN's responsibility is to serve as a cohesive coordinator force for consumer educators by providing a three-fold program of information dissemination, training and technical assistance, and materials and program development. In order to fulfill this responsibility, CERN conducted a status study of information dissemination resources. CERN then explored the ways in which existing efforts could be complimented and supplemented.

This presentation reports the findings of that internal study and explores ways in which CERN is involved in responding to consumer educators.

Characteristics of Existing Consumer Education Resources

In order to develop ways to respond to the needs of consumer educators, CERN studied existing dissemination systems having a potential impact on consumer education efforts. For purposes of study, existing dissemination systems were grouped as clearinghouses, data bases, resource centers, public agencies and offices and private organizations and associations. Within each group, systems have common characteristics which render them more or less beneficial to consumer educators. As one would also expect, systems

within each group differ in some respects. A summary of the characteristics of these groups points out those commonalities and differences.

Clearinghouses

A clearinghouse is a facility which identifies materials and information, processes information, and disseminates information on a specialized topic or to a special audience. A clearinghouse is primarily dedicated to information exchange within a certain group of users, but may also serve secondary functions, such as that of on-site library, materials distributor, or materials lender.

There are a number of clearinghouses and there appears to be a trend toward clearinghouse development in the U.S. Office of Education. The sixteen specialized clearinghouses in the (ERIC) system have served as models for many of the newer clearinghouses.

The clearinghouses which are of particular interest to consumer educators share several important characteristics. All were established to identify, process and disseminate information on a specific topic or set of topics (e.g., teacher education, social studies, adult education, handicapped). All have placed limits on the collection of materials and information either by establishing evaluative criteria or by specifying the source of material. Although established to fill specific needs, the existing clearinghouses do not deny information service to any audience (i.e., they do not restrict the audience to researchers, to educators, or to service providers).

A clearinghouse may have manual and/or computerized storage and retrieval systems, depending on the size of the audience. Most consumer education-related clearinghouses are computerized systems.

All clearinghouses operate from an in-house data base. Some also search other data bases in attempts to respond to user queries.

Data Bases

A data base may exist independently or function as a component of a clearinghouse or other entity.

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Data bases may be composed of three types of information: 1) a collection of information on a specific topic (e.g., bilingual education), 2) a collection of information to a specific audience (e.g., school administrators), or 3) a collection of information from a specific source (e.g., Federal Record). There are many data bases relevant to consumer educators because consumer education is closely related to a number of other subjects; consumer education is delivered to many learner groups; and consumer educators function in a variety of settings.

Data bases may be characterized by their diversity as well as their commonality. Data bases which operate through ERIC or as independent systems have established procedures for cataloguing, indexing and abstracting, and for search retrieval. These data bases are machine-readable, accessible through a commercial vendor, and often provide hard copy. Thus these systems are accessible to virtually an unlimited audience.

Non-ERIC clearinghouses have data bases, but accessibility varies greatly. Some data bases are computerized and accessible through a commercial vendor; others are computerized and searched by in-house staff or selected users; still others are manual files which must be searched on-site.

Data bases share no common indexing procedure. Newer data bases stemming from USOE-funded or NIE-funded clearinghouses tend to use the ERIC procedure as a point of departure, but invariably modify the procedure in some way.

Data bases also vary in frequency of updating and purging. ERIC does not purge, but updates frequently. Other bases update monthly, weekly or daily, depending on the nature of their information. Some bases purge automatically on a time basis (e.g., files only contain material for the two previous years), while others use selective purging (e.g., information is purged as it is replaced by more current data on that topic).

Resource Centers

A resource center is a multi-purpose facility providing access to materials and information for educators. Resource centers are maintained as a component of an educational institution and may provide secondary services such as training and technical assistance. Resource centers seldom serve researchers or conduct in-house research.

Resource centers provide on-site library facilities for educators or educators-in-training. The centers usually provide services to a geographically limited audience.

There are uncounted numbers of resource centers located within educational institutions, but the users of such centers are generally very limited. Other resource centers are extremely active and visible, and seek to serve an ever-increasing audience. Of this latter group, the two best known centers for consumer education are those at Eastern Michigan University (MCEC) and Oklahoma

State University (CCS). These two centers have several characteristics in common. Both must restrict state-funded efforts to in-state users, but may serve out-of-state users with other funds. Both are located within a university; are staffed by persons experienced in the consumer field; maintain a library which is open to all educators; have established filing systems; and collect materials from all sources and in all forms. Neither center evaluates material, neither has an established system for updating, and neither purge their files. MCEC processes and stores material according to the Library of Congress cataloguing system and loans materials to educators throughout the state. CCS stores materials grouped by type (e.g., textbooks, curriculum guides), and does not loan materials.

In addition to these specialized consumer education centers, teachers are served by another group of resource centers known as teacher centers. These two types of resource centers are similar in several respects. Like the consumer education centers, teacher centers collect materials and make them available to teachers. Similarly, teacher centers have no formal evaluation or selection criteria other than that of classroom adaptability.

The differences between consumer education centers and teacher centers are more significant than are the similarities. None of the teacher centers are involved in consumer education, nor do they have staff trained in consumer education. There is, however, an interest among several of the centers to include consumer education content and support services.

Public Agencies and Offices

Public agencies are established to serve a specific function, such as education, research or litigation. These agencies frequently consider educator training to be an important component.

For example, attorneys general and district attorneys seek to reduce the need for litigation by creating a better informed public. Toward this end they disseminate information to educators in institutional and community programs. Likewise, universities and the federal government disseminate information to educators as a vital part of their network. Consumer educators receive current special topic information from these agencies, such as consumer protection information from the litigation offices, consumer issue analyses from the Center for Consumer Affairs in Wisconsin and the federal government, and results of current research from the Cooperative Extension Service or other university faculty.

The school systems themselves represent another group of public agencies which provide educator training. The intermediate education agencies (IEAs) and state education agencies (SEAs) disseminate information on content and methodology. In addition, these systems can sponsor conferences and workshops. Often IEAs and SEAs provide an interaction program where teachers can

assimilate information and develop materials for classroom use. IEAs and SEAs direct their efforts primarily to teachers and administrators in the K-12 program. Community-based educators are seldom encouraged to avail themselves of services. However, there is a trend toward greater interaction between school and community, and, in a survey of key personnel in IEAs, several indicated a willingness to serve the non-traditional educator.

Private Organizations and Associations

Although there is no national consumer education association, there are associations and organizations which have a present or potential consumer education function. These entities share common attributes, such as:

- service to member individuals or agencies which have consumer education as a responsibility;
- simultaneous service which is not directly related to any consumer education concern (e.g., the American Home Economics Association's involvement with vocational programming, the United Auto Workers' concern for working conditions;
- potential for conflict between consumer education and other group interests; and
- an established dissemination network which, while reaching consumer educators, is sustained through the total group efforts (e.g., the National Council for Social Studies is not dependent upon the group's involvement in consumer education).

The groups are dissimilar in that some are professional associations, some advocacy or lobbying groups, some unions, and some service organizations.

These private organizations and associations have a strong potential for linkage to CERN because of their desire to improve service to members without greatly increased effort and, in many cases, to be viewed as the service provider.

Examination of Questions Confronting CERN

The study by CERN of these existing systems and previous formal and informal needs assessments provided an overall picture of what was available and, in general terms, what else was needed. Furthermore, the analysis of existing systems raised a number of questions whose answers effect and shape CERN's role as a facilitator and coordinator of consumer education efforts. The questions faced by CERN are as follows:

Question 1. To what extent is there a functioning network already in existence?

All evidence points to a lack of networking in the consumer education field. A review of the literature reveals frequent references of a lack of communication channels.

Since the grantees of the Office of Consumers' Education represent a cross-section of potential CERN users, the existence of networking to or among this group would indicate the availability of such a network for all potential users. All FY 1979 grantees were questioned regarding the publications which they regularly receive for consumer education and the sources on whom they rely for additional consumer education information and materials. Forty-nine grantees provided answers to CERN's query. There was no pattern in response to the query on additional sources, and only a slight agreement regarding materials received regularly. Seventy-two different materials (or sources of materials) were mentioned by the forty-nine respondents. The most frequently mentioned piece of material, Consumer Reports, was mentioned by only forty percent of the respondents. Ten to twenty percent of the grantees reported receiving FDA Consumer, ACCI Newsletter, Consumer News, FTC News Summary, Consumer Research, Changing Times, materials from the Consumer Information Center, Journal of Home Economics, Cooperative Extension Service materials, popular news magazines, and newspapers.

On the basis of these findings and informal discussions with other consumer educators, it is reasonable to conclude that no cohesive network currently exists to disseminate information and materials to consumer educators. CERN has the potential and is already beginning to provide such a network for the consumer field.

Question 2. What types of information should be collected and stored by CERN?

The needs assessment indicated a need for information in five categories, as follows:

- materials - information on materials currently available. Such materials would include, but not be limited to, texts, curriculum guides, pamphlets, brochures, games, simulations, audio-visuals, learning packages, news and journal articles, research and task force reports, and program reports;
- programs and organizations - information on programs and organizations currently involved in consumer education activities;
- legislation - information on consumer education legislation at the federal, state, and local level including: copies of present legislation or mandates, hearings and testimony, legislative history, administering agency or office, nature and dates of anticipated action, name and contact data for congressional members and especially for members

serving on relevant policy and appropriations committees

- on-going and unpublished research - information on research which is currently underway or which was never published including: graduate student research, unfunded faculty research, community-based research and needs assessments, as well as traditional funded research;
- Human resources - information on personnel in consumer education who are considered to be expert or skilled in one or more aspects relevant to the field.

CERN already had in existence an extensive collection in the first two categories. The other three categories are being developed during the remainder of the contract period.

Question 3. What content should be of concern to CERN (i.e., what should be the parameters of the collection)?

The CERN collection, because it serves a broader spectrum of users than does any existing system, includes content to serve all consumer needs. In establishing parameters, CERN carefully examined the needs identified in previous needs assessments and reviewed the informal and formal discussions with consumer educators. Content responds to the information needs of K-12 educators, school planners and administrators, teacher educators, curriculum planners, service providers, advocates, policy makers, program planners, researchers, and consumer agency personnel. The collection addresses the needs of all audiences, both majority and minority user groups.

To respond to these needs CERN has developed a strong collection of print materials for use in the design and implementation of consumer education programs. There is also a strong demand for non-print materials, and CERN will address this need in the months ahead.

CERN will also be responding to the need to provide materials on broader policy issues, on emerging social issues, on on-going and recently completed research, and on existing programs. The CERN collection must include all the above to meet the expectations and needs of consumer educators.

Question 4. Should CERN reference journal articles?

Most journals relevant to consumer education are indexed by ERIC or one of the several other data bases. For this reason, it is judged unnecessary for CERN to index journal articles at this time. CERN will compile journal files on relevant journals not currently indexed in other data bases. A number of the public interest journals are not currently included in any data base or index (i.e., CalPIRG Reports, Action Faction, NCL Bulletin). CERN's compiled journal files will initially focus on these public interest journals as having the greatest potential marginal benefit for consumer educators.

Question 5. Should CERN evaluate materials? Should an evaluation be used to include or exclude materials?

While no source would want its own material excluded, most agree that material should be evaluated. Consumer educators often lack the time and expertise to evaluate materials. Thus there is agreement that evaluation is needed.

There is less agreement regarding the purpose of such evaluation. Some potential users regard evaluation as a selection mechanism while others feel it should be only one part of the information provided about a piece of material. InterAmerica, with the support of the CERN Advisory Committee, designed an evaluation criteria which will be used in a formal process to determine which materials should be in the CERN collection.

Question 6. Is there an available descriptor list appropriate to CERN's needs?

ERIC and many other data bases have developed indexing terms and several resource centers have filing systems which identify key terms. However, no available system can provide both the depth and breadth needed for the CERN collection.

For example, the ERIC thesaurus does not include sufficient terms to prepare a specific search request of consumer education materials; the thesaurus does not distinguish between materials for a special audience and materials about that group; it does not indicate which programs have been validated.

The resource centers have filing systems which, while in sufficient detail, are narrowly focused on instructional materials and state needs. There is no potential regional center which has a usable list of descriptors. Therefore, it became the role of CERN to develop a descriptor list tailored to the needs of consumer educators.

Question 7. Should CERN maintain an in-house collection of materials?

It is necessary for CERN to maintain an in-house collection of materials. By storing acquired materials, a central library can be maintained and staff is provided access to the material while it is processed and indexed.

Whenever possible, materials should be retained in the collection to be available for use in research, reference and referral. Only in special instances, where cost far outweighs the marginal value of the material, will the item not be stored in-house.

Question 8. Should CERN prepare abstracts of materials in the collection?

Most on-line data bases provide abstracts of material content, most manual bases do not. There does not seem to be a justified need for abstracts at this time. While CERN's material reporting

service is needed, there is not sufficient abstract demand to justify the estimated cost of \$65 per abstract (ERIC estimate).

An evaluation of CERN's requests for information about materials has indicated that CERN is currently providing a sufficient amount of data for decisions about materials to be made without an abstract.

Question 9. What evaluative mechanisms can be developed to measure CERN's dissemination effectiveness?

Most educational and scientific clearinghouses operate through subsidized grants or through government supported institutions. The products of these facilities are primarily bought by university and government libraries to complete their data banks. The informational data procured (through government support) is not generally accepted/rejected on the basis of cost-effective usage, but on the basis of its availability to a potential user. Therefore, the make-up of the informational base is not generally tested by its purchasing power. Similarly, the product of CERN is a service which will not at this time be tested in the consumer marketplace on the basis of cost to the user.

In the absence of a simplistic measure of utility, motivation and need for product or delivery methodology improvement is less apparent. In the belief, however, that user needs change and/or that some products or services do not obtain approval or satisfy the required needs, a method for continuously evaluating (1) the utility of the product or (2) changing requirements must be developed and implemented. (While such an evaluation is primarily intended as a measure of CERN's effectiveness and not as a redundant assessment of the material content prepared by other components of the network, it may be beneficial to these components).

A formal procedure for evaluation is included in the CERN structure. The evaluation criteria includes (1) frequency of material usage, (2) longitudinal surveys of material application, (3) perceived value of the services and materials by the recipients, and (4) desired changes to materials and services required by the user. Implementation to provide measurement data should include:

- a controlled count at CERN of all information request calls; classification of caller (agency, school administrator, curriculum planner, etc.); material requested; response action to the request request (made available, provided source of data, provided research, etc.); response time required to fulfill request;
- evaluation forms to recipients after a small interval of time to determine usefulness of information and level of application;

- request for critique at forums and seminars;
- request for critique in ConCERNs (a form is provided to simplify the response);
- publication of evaluated results to permit appraisal by all interested parties--and a request for comments and suggestions based on the results.

Question 10. Should CERN charge for searches conducted on its own base?

CERN was created as a service network and has been very well received by potential users. However, users are not familiar with search procedures and may have unreasonable expectations. For this reason, and because of the delay in file development, the search of CERN's own file will be provided free of charge to any consumer educator during the initial years of operation.

Question 11. Should CERN search other data bases to fill user requests?

The major clearinghouses operate within prescribed limits and do not search other bases.

CERN will search other data bases on request only in those cases in which the request cannot be adequately answered using CERN files. If a user obtains information from CERN and still desires more data, CERN will refer the user to other data bases and supply a search logic, if possible. If the user cannot access the other data base, CERN will conduct the search at cost.

Question 12. What organizational attributes must be included in CERN to permit a research component?

It is a normal function of any information center to respond to requests for information. It is anticipated that routine questions by practitioners would be answered by other linkages in the field, perhaps with the assistance of the informational bases constructed by CERN. Extraordinary questions, on the other hand, would move from the field to CERN - the only component of the consumer education network specifically designed to organize. To maintain credibility and increase utility, CERN must be eagerly responsive to these inquiries. CERN must be appropriately structured internally to cope with a large volume of inquiries. Many complex questions about guidelines, innovative curriculum and curriculum planning, and content must be anticipated. It is important, then, that CERN have a dedicated staff available to respond to extraordinary, complex queries.

Question 13. What effective 'outreach' program can be implemented by CERN?

The consumer educator may not be adequately prepared, may not know what material to obtain or where to obtain it, and may not be aware of others who are attempting similar programs. The promise of an organized information source that is responsive to the questions of the administrator and able to quickly address itself to the needs of classroom and community-based educators could facilitate improved consumer education. However, the promise must be proven and promoted. CERN, because of its central location within the network, must promote the system. It must do so without emphasis to itself; rather, it must promote the concept of a unified consumer education network prepared to offer services to the pragmatic user.

Several levels of 'outreach' are anticipated. For long term promotion, network service awareness must be advocated through the publication of a scheduled newsletter and active participation in educational forums and seminars. For shorter term promotions, 'evangelistic' selling must be conducted through personal visits and group discussions to inform consumer educators, especially those in community programs, of the realities of the system, the methodology necessary to acquire services, and the benefits that can be expected from the system.

To prove the contention of immediate benefits and quick reaction, CERN provides a toll free line to permit the potential user to interrogate the system.

The involvement required to dynamically promote the system requires an activity concept beyond the information gathering and storage activities which semantically defines a "typical" clearinghouse. However, CERN has the advantage of being "more than just a clearinghouse", of providing program development, training, and technical assistance services. The combination of services brings CERN closer into the network than would otherwise be possible. Successful service in one area will encourage use of CERN for other consumer education needs.

Question 14. What format should the newsletter take? To whom should it be distributed?

The newsletter will follow the philosophy of CERN, it will add to current efforts in consumer education so as to have a synergistic effect. The publication will supplement the current newsletters and will carry occasional journal-type articles. There is currently no journal for consumer education, so CERN will encourage the submission of brief articles of research or programmatic interest.

ConCERNS will serve:

- as a forum for ideas/news,
- as a vehicle by which the exchange of information and ideas occurs, and

- as a focal point for consumer education - pulling together the ideas and activities of consumer educators, and publicizing this information so all groups can benefit.

The newsletter will be broad enough to have appeal and to be able to provide useful information to all groups. ConCERNS will consist of the following regular features:

- an opening article - a general article on consumer education related information pertaining to administration policies/decisions/activities, and/or other important federal decisions/legislation, etc.;
- a CERN article - an article citing important CERN activities/announcements;
- other articles of interest - these will vary, but may include news from local, state and federal levels; information pertaining to other consumer groups; OCA/OCE activities/announcements;
- a section of general interest, consisting of a selection of people/places/activities;
- an in-depth report of an exemplary program or activity;
- calendar of events - list of events and activities in coming months.

In addition, ConCERNS will carry some rotating features, such as:

- bibliographies of materials on special topics;
- research corner - articles by guest writers on new research in the field, primarily on-going research or research that will be unlikely to be published in existing journals in the near future;
- viewpoints - articles by guest writers on philosophies or opinions related to consumer education.

The suggested format is intended to stimulate interest among policymakers, administrators, and other educators.

ConCERNS is published eleven times per year. ConCERNS is provided at no cost to non-business receivers and will be distributed to:

- all groups or individuals who supply materials or information for the CERN files (except for publishing companies);
- all former and current Office of Consumers' Education grantees;
- dissemination specialists in all SEAs;

- the staff of Senate and House committees which impact on consumer education policy or funding; and
- any consumer educator who requests receipt.

Question 15. Is an in-house computer facility or computer peripheral necessary with CERN?

CERN must serve an information clearinghouse function for consumer educators. This implies CERN's capability to:

- expeditiously search out internal and external files for bibliographic materials, journal articles, audio-visual materials, etc. germane to consumer education; and
- provide referral information on documents, materials, and human resources significant to the CERN user needs.

Within its structure, therefore, CERN must have a reference library of materials, a means of access to externally developed files (ERIC, CRIS, SSIE, etc.) which may have consumer education material, and an internally structured filing system which contains information (consumer affairs, human resources applicable to consumer education, legislative information, curriculum information, new programs and projects) which supplements the existing externally developed files. Organization of these facilities is not new. It has been considered and implemented in modern information clearinghouses established in both the education and scientific communities.

CERN has computerized files which currently take two forms:

- information stored in automated data processing systems such as ERIC and which are available from commercial information services; and
- information in the CERN in-house file which supplements the bibliographic materials and journal articles abstracted in the commercially available systems.

Conclusions

Given the imposed attributes required to fulfill CERN's functions, and based on the analysis of questions in consumer education, CERN has adopted an operating procedure which includes the following features:

- CERN and its linkage to all other elements in the network is under the management of a central control system. The CERN administrative function includes not only responsibility for the internal operation of dissemination, but also responsibility for maintaining close and positive relations with

sources and users of consumer education information. This strong management system is responsible for CERN product distribution and for outreach to enhance the participation of CERN's diverse user group. The power held by the centrally controlled administration is designed to assist in evaluating the information system and altering methods and processes to improve service quickly.

- The materials collected by CERN and the information processed are those that would be applicable to instruction (in or out of the traditional classroom), research; policy-making, etc., including materials and information on programs and organizations; legislation, curriculum (assessed or in development); curriculum guides, training manuals and materials; pamphlets; textbooks intended for consumer education instruction; non-print materials (audio-visual, games posters, etc.); and consultant reference information that could be used in consumer education technical assistance. ERIC still collects journal articles and reports which are appropriate to consumer education.
- The descriptor list is composed so as to resemble, as closely as possible, the ERIC thesaurus and the filing systems used by resource centers. Because CERN is serving a different function than any of these groups, the descriptor list differs in depth of analysis and in scope of content. CERN will work cooperatively with ERIC clearinghouse directors to encourage integration of more consumer education terms into the ERIC thesaurus and thus increase CERN's efficiency in conducting searches of ERIC files.
- To provide access to the large quantity of materials and information included in the CERN collection, CERN has developed a computerized data base. The data base is accessible only through CERN for the duration of the current contract.
- To provide comprehensive, quick reaction coverage to requests, CERN assigns a key staff of researchers to this function. It is the obligation of these researchers to search the internal files; search the retrieval data base of ERIC and other data bases (using remote terminal facilities); correspond with known contributors or consultants in the area of the query to determine the response or the source of assistance to the questioner; compile a bibliography of material; or with certainty, determine that no material exists and possibly suggest alternate methods of subject treatment.

- The central system concept involves CERN more directly in the material distribution system than is normal for an ERIC clearinghouse. CERN supplements data sources as necessary. CERN obligates itself to obtain material, if possible, from unique sources (example - foreign materials, legislative information, etc.) or material of special character.
- CERN is centrally located in the consumer education network and through its information processing activity is more aware of the operation of other facilities than in any other group. It is therefore incumbent on CERN to serve as a linking hub of the system. To administratively support such a function beyond providing information to all elements of the network, it must be the leader in promoting the network and its services, and in general, must be a catalyst for consumer education activity. To be responsive to such activity on a continuous basis, CERN must accept responsibility for continuous liaisons with the other elements of the network and it must be responsible for network promotion and intra-agency involvement.

CERN believes that in order to be effective, many groups, individuals, programs, data bases and clearinghouses are necessitated. The process of identifying resources in determining exactly how CERN can facilitate educational processes will be an on-going task. A major portion of the work has been accomplished. CERN realizes, however, that dissemination activities must be flexible. CERN must continue to search out, define, and establish linkages with elements in the network.