Major career education concepts were infused into the total curriculum in District II of Richland County in Columbia, South Carolina. Six major areas of emphasis were identified reflecting district thinking and national trends: self awareness; decision-making; career awareness; attitudes and appreciations; economic awareness; and educational awareness. Information Based Evaluation Exchange (IBEX) was chosen to evaluate this effort. Workable definitions of career education and evaluation were arrived at through conferences with principals and administrators and the IBEX staff. The three major components on which IBEX rests: information users, information domains, and evaluation questions, were carefully reviewed and given priority ranks in the evaluation. Major concerns in terms of evaluating the program which, in essence, were inadequacies that the staff of District II had experienced with other programs and program evaluations, were formulated. Overall, IBEX proved to be an integral part of the change process in the district. However, because the post-test data has not yet been collected and analyzed, the results of the first year's effort are not yet known. (RC)
EVALUATING A CAREER EDUCATION PROGRAM WITH IBE*

H. Dale Holden
Director of Career Education
School District II of Richland County
Columbia, South Carolina

*INFORMATION BASED EVALUATION

A paper presented at the symposium "Information based evaluation: A design procedure" (Symposium, Division D/NCME) at the American Educational Research Association Conference on April 17, 1974, Chicago, Illinois
I. PROGRAM DESCRIPTION

The exemplary Career Education effort in District II began operation in July, 1973, under the joint supervision of the District Superintendent and the State Department of Education. To maintain close coordination of this effort with all other district programs, the project director serves as the District Director of Career Education. The remaining project staff includes: an associate director, who with the director oversees the general project administration and provides assistance to elementary and middle school teachers; a junior high school coordinator and a senior high coordinator, both of whom assist teachers in planning and implementation; a placement coordinator who is responsible for the placement and follow-up activities; a placement secretary, and two staff assistants who assist teachers with arranging resources such as field trips, speakers, and materials.

The first year, all students through the ninth grade are involved in Career Education through efforts that refocus the existing curriculum. During the same time, a high school task force is developing and piloting various approaches which will be utilized by all high school teachers before the completion of the second year of the project. In addition, special activities will be developed and implemented at all levels to meet specific student needs; these may include special guidance efforts, unique curriculum additions, intensive training programs, and work experience activities.
The overall goal of this effort is to infuse major Career Education concepts into the total curriculum. As a first step, the district administration and the project staff developed a working definition of Career Education that includes the broad concepts to be infused. Six major areas of emphasis were identified, which reflect both district thinking and national trends. These areas are: self-awareness; decision-making; career awareness; attitudes and appreciations; economic awareness; and educational awareness. Throughout the effort, involving students in related learning experiences and using the community as a learning resource are major themes.

School District II serves a student population of over 10,000 with six elementary schools, a middle school, a junior high school, and a senior high school. Seventy-one percent of the students reside in suburban areas of Columbia and the remainder in primarily rural areas. The minority student population is approximately sixteen percent. Although the family income of approximately sixty percent of the student population is above average for the metropolitan Columbia area, twenty percent of the students come from homes classified as severely disadvantaged. The school district covers an outlying rural area as well as the northeastern suburbs of Columbia. This location affords numerous community resources including the headquarters of all state agencies, the major state university, numerous private and public post-secondary education institutions, and representatives of major factions of the state's economy.
At the elementary, middle, and junior high levels, teachers define subconcepts appropriate for their students and discover methods of infusing these into their curriculum. By building upon existing subject matter concepts, the Career Education effort becomes a continuous, integrated process. Summer workshops for all teachers at these levels were offered as well as on-going staff assistance throughout the year, enabling all elementary, middle, and junior high school teachers to be involved in the effort by September, 1973. Existing guidance programs and special education efforts were refocused to include the Career Education concepts. In addition, the junior high school libraries have been expanded to include Career Information Centers.

A similar but somewhat extended process is being used at the high school level. In September, 1973, a task force of high school teachers representing the basic subjects began to work with the project staff to identify ways of infusing the basic Career Education concepts into their classes. By mid-year, teachers piloted various approaches and by September, 1974, all high school teachers will be involved in Career Education. In addition, many existing high school programs will be expanded to supplement the Career Education effort, including various guidance efforts and an exploratory program at the vocational center located on the high school campus. The high school library also houses an extensive Career Information Center.

A student placement office was established in September, 1973, to assist students in finding part-time employment and
job exploration sites, as well as to assist in placing high school and college graduates in permanent positions of their choice. A community Service Corps also offers opportunities for individual students to explore various work roles. In addition, a five-year computerized follow-up program has been established to facilitate the school's assessment of its overall effectiveness.

II. THIRD-PARTY EVALUATION

Involvement with prospective third-party evaluators began before the funding of the exemplary program. Several organizations were asked to review the proposal and submit a tentative evaluation plan. After receiving the proposals, each evaluator was asked to meet with the prospective career education staff members and other district office personnel. The purpose of these meetings was to familiarize the evaluators with the district and to allow the staff ample opportunity for specific questions. Based on the results of the meetings and the evaluation plans, IBEX, Incorporated (Information Based Evaluation Exchange) was chosen to evaluate the Richland II Career Education effort.

Rather than impose an "ideal" definition of career education or evaluation on principals and administrators, the staff worked in cooperation with them at a weekend conference to develop workable definitions. From a programmatic standpoint, much of what was decided upon is reflected in the previous section of this paper. In terms of the evaluation, however, little was decided until late in July when the actual
"design conference" was scheduled to take place. The June conference, however, did provide an opportunity for principals and other district personnel to be introduced to the concept of information based evaluation. They learned from an IBEX staff member the process for establishing domains (needs), users (those who need information for decision-making), and questions (links between users and domains in critical areas). Thus, by the time the "design conference" was scheduled, the district personnel were ready to make their ideas known. Although the conference took two days, it clearly established, in the order of priority, those who need evaluation information for decision-making, those areas of concern relative to the program, and a tentative list of questions in each domain. The next section "Information Needs" contains the results of the conference which eventually became the guidelines for the entire evaluation effort. Note that a number of constraints also came to light, especially in the areas of testing time and overall costs.

One of the positive aspects of information based evaluation is that questions in addition to those dealing with student outcomes are treated in the evaluation design. For a district that so desires, this can provide for a much broader overview of a career education program. In District II, specific techniques for gathering data were established for each of the questions in five out of the seven domains. Many of the instrument sub-scales will later be regrouped so that conclusions can be drawn concerning the impact of the six areas of emphasis (career awareness, self awareness, economic awareness, attitudes and appreciations, educational awareness,
and decision-making) on teachers and students. Because the areas represent broad fields of concern that naturally tend to overlap, certain items and sub-scales will eventually be fed into more than one area of emphasis. As stated in the first evaluation report prepared by IBEX: "The overall effect may be viewed as six upright funnels with data being fed into each and analyzed as it relates to the areas of concern (funnel)." This, when coupled with a matrix sampling system, helped to cut down on the time needed for the testing of students to within the one and one-half hour constraint suggested by principals and administrators.

The initial gathering of data for each of the questions began in September of 1973. Each of the data collection instruments was presented to the District and was either approved or revised (with the help of IBEX) to meet specific needs. The actual administration of the student outcome related instruments took place during the middle of September and is planned again for mid-May. Thus, at this point in time only baseline data has been gathered in each of the domains.

III. INFORMATION NEEDS

Information Based Evaluation (IBE) rests on three major components: information users, information domains and evaluation questions. At two evaluation design conferences with the Richland II staff, these three components were carefully reviewed and given priority ranks in the Career Education evaluation.
Information Users

Those who need or desire information about a particular project or program in the semantics of IBE are called information users. For Richland II, the following priority list of users was adopted:

- Program Staff
- Principals
- Teachers
- Central Staff
- Superintendent
- Board of Education
- General Community
- Information Director
- Business Manager
- Students
- USOE
- SDE
- Professional Community
- Business and Industry

Information Domains

A general area of concern for project or program staff and participants is called an information domain. For this project the following list of domains was adopted:

- Student Outcomes
- Principal, Teacher and Administrative Perception
- Instructional Strategies
- Community Involvement and Attitudes
Program Staff Performance
Costs
Student Characteristics

The last two domains will not relate to specific evaluation questions of interest. Data will, however, be collected on these two domains as either baseline information or as an aid to the study of interrelationships.

Evaluation Questions

The following list of evaluation questions is organized by information domains. During the course of the evaluation, additional questions may arise which can be answered with the available data elements, if so, they will be added to the following lists:

Domain: Student Outcomes

1. How did students change in relation to the six areas of emphasis in terms of knowledge, attitudes, and behavior? (Note the six areas of emphasis are: 1) career awareness and preparation, 2) self awareness and understanding, 3) economic awareness and understanding, 4) attitudes and appreciations, 5) educational awareness, and 6) decision-making.)

2. How did the following student characteristics effect the answers to the above question:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>urban/rural environment</td>
</tr>
<tr>
<td>race</td>
<td>military/non-military</td>
</tr>
<tr>
<td>sex</td>
<td>home</td>
</tr>
<tr>
<td>economic level</td>
<td>drop-out status</td>
</tr>
</tbody>
</table>
Domain: Principal, Teacher and Administrative Perceptions

3. How do principals perceive the Career Education (CE) effort?
4. How do teachers perceive the CE effort?
5. How does the central administration perceive the CE effort?
6. How do these three groups and the CE staff see each other's professional role in the career education effort?

Domain: Instructional Strategies

7. How did teacher involvement in the Career Education effort change?
8. To what degree do teachers infuse CE into their classroom activities and to what extent did the Planning Guide facilitate that infusion?
9. What teaching strategies advocated by CE (and at what level) are teachers utilizing in their classroom? Do they show increased use of such strategies?

Domain: Community Involvement

10. Is there an increase in the level of involvement of community resources in the learning process?
11. Was the community involvement effective?

Domain: Staff Performance

12. Was the performance of the Career Education staff effective in the opinions of teachers, principals and other administrators in the following areas:
   - conducting in-service;
   - assisting with implementation;
   - arranging resources?
13. How does project staff rate their own effectiveness during 1973-74?
14. How do members of the CE staff utilize their time?
IV. In terms of evaluating a career education program, there are a number of concerns that must be expressed. Many of these concerns are, in essence, inadequacies that staff of the Richland District II effort had experienced with other programs and program evaluations. Fortunately, the staff has been able to work closely enough with IBEX to insure that they can be dealt with openly and to the satisfaction of both parties. Generally speaking, the following concerns seem most prominent:

1. District administrators, principals, and teachers who do not know what the career education effort is or what it is attempting to accomplish. In other words, they are not familiar with program philosophy, objectives, strategies, constraints, or evaluation procedures.

2. District administrators, principals, and teachers who do not see the value of any type of evaluation and therefore are not concerned with what IBEX calls "users," "domains," and "questions."

3. Project staff and principals who view evaluators as threatening and, as a result, are hesitant about working with each other to shape the evaluation to the program. Thus, the program usually ends up getting shaped to the evaluation because the district views the evaluators expertise as untouchable. Then too, the constraints imposed on the program are those of the evaluator rather than those of key people such as principals, teachers, and staff.

4. Evaluators who do not or will not spend time learning how one career education program differs from their other CE contracts. Little or no time is spent on-site talking with principals, teachers, and administrators. This can be a very misleading approach since the impressions gained from project staff and written reports is often very different from what things are like out in the field.

5. Evaluation instruments that are not only inadequate, but are designed for some other career education effort that is miles away in both distance and philosophy. Often the more empirically pure the instrument the more it tends to key into low-level congnitive objectives such as having the student name various occupations.
6. Evaluation reports that are lengthy and weighty but are not usable as a tool for decision-making because of their highly technical language and lack of summary reports.

7. A District's assuming the responsibility for conducting the evaluation after contract signing with little or no involvement from the evaluators.

8. Evaluation data that reflects only student outcomes, when such areas as community involvement, cost effectiveness, and individual perceptions of the program can be just as important. Then too, the treatment of data being lumped together so that it is difficult to determine if progress is being made with those teachers and students who are actually involved.

9. Control groups that are severely contaminated or, in some cases, no control groups at all.

Fortunately, the staff of the career education program in District II has not had to cope with many of the problems that have restrained other efforts. The support received from the Board of Education, the Community, the principals and teachers is without parallel. They are not only knowledgeable but they also provide the type of leadership that will insure the continuance of the program after federal funding has ceased. Overall, IBEX has proven to be an integral part of the change process in the district. However, because the post-test data has not yet been collected and analyzed, the results of the first year's effort, from an evaluative standpoint, are not yet known.