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ABSTRACT

This is one of two reports being prepared as a third party evaluation of a project to determine the feasibility of the career education model being implemented in the vocational programs of the Minnesota State Department of Education. The purpose of this phase of the study was to make observations and provide information which would be helpful to decision makers at the State and local level in monitoring the project. Site visits to projects and interviews there with educational and administrative personnel were used to obtain the data. Since the inception of the project in 1971, the State Department has funded eight exemplary career education programs throughout the State. These agencies, responsible to the State Department of Vocational-Technical Education and to the Minnesota Research Coordinating Unit are manned in three types of communities, suburban, industrial-agricultural, and agricultural. Observations of the evaluation team on site visits are recounted in narrative form with a use of examples to show organizational strategies, processes, and projects. Areas for additional observation and investigation are summarized. (Author/SN)

INTERIM EVALUATION REPORT

OF

THE CAREER EDUCATION MODEL UTILIZED BY THE MINNESOTA STATE DIVISION OF VOCATIONAL-TECHNICAL EDUCATION

MAY, 1973

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THE CAREER EDUCATION MODEL UTILIZED BY THE MINNESOTA STATE DIVISION OF VOCATIONAL-TECHNICAL EDUCATION

Submitted to:

Minnesota State Department of Education
Division of Vocational Technical Education
Program Planning and Development Section

Date Submitted

May, 1973

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I. INTRODUCTION

The major goal of this study is to research and evaluate the feasibility of the career education model being employed by the Minnesota State Department of Education, Division of Vocational-Technical Education. This interim report is one of two reports being prepared as a third-party evaluation of this project. The specific objectives of the overall study are:

A. To evaluate the effectiveness of both the project's administration and the career education program as it is operated in the schools;

B. To identify the products and processes of the eight sites which may be transportable to the other LEA's within the state of Minnesota and/or the nation;

C. To project the cost-benefit relationships of transportable elements, both those elements unique to the individual sites and those elements common to the entire model;

D. To develop descriptive profiles of the students served by each of the eight sites, including number in each project, grade level and other demographic and educational characteristics which might enhance understanding of the transportable elements;

E. To determine the disadvantages and advantages of an eight-site model to a one-site model. Since the model utilized by the state has eight sites, this objective will focus mainly upon the feasibility and efficiency of this eight-site operation. Under these conditions, it will be impossible to make a direct comparison of an eight-site model versus a one-site model.

F. To conduct an auditing process of the involvement of the RCU with the models.

It was not intended that this report would draw conclusions and/or make recommendations. The focus here was to make observations and to provide information which would be helpful to decision-makers at the state and local level in monitoring the project. Hopefully, this report will point toward the findings which will be recorded in the final report.

The information presented here is the result of visitations to each of the eight sites and interactions with personnel in the State Department of Education. Additionally, monthly meetings with the State Division of Vocational-Technical Education and project directors were very helpful in gaining a better perspective of the project

1.1 Process of Data Collection

To gather data for this interim report, several activities were undertaken. Site visits were made to each of the project sites during which time the evaluation personnel met with the superintendent or his representative, the project director, the principal and a minimum of four teachers who had been selected at random.

Monthly meetings of the State Department officials and project directors were attended to gain a perspective of the operational design and modifications. Additionally, proposals submitted by each site were reviewed and critiqued in an effort to identify discrepancies between the design and the implementation.

Interviews were structured to focus upon many aspects of the project's operations, including the processes used, the products produced by the

projects to date, the impressions of the teachers relative to the project, teachers' involvement in in-service and workshop activities and their feelings of accomplishments on the project to date.

Budgetary and cost data were collected in preparation for a cost/benefit analysis. Of special concern was the project cost of transportable elements to other LEA's. The results of this analysis will be included in the final report.

1.2 Conceptualization of the Minnesota Model

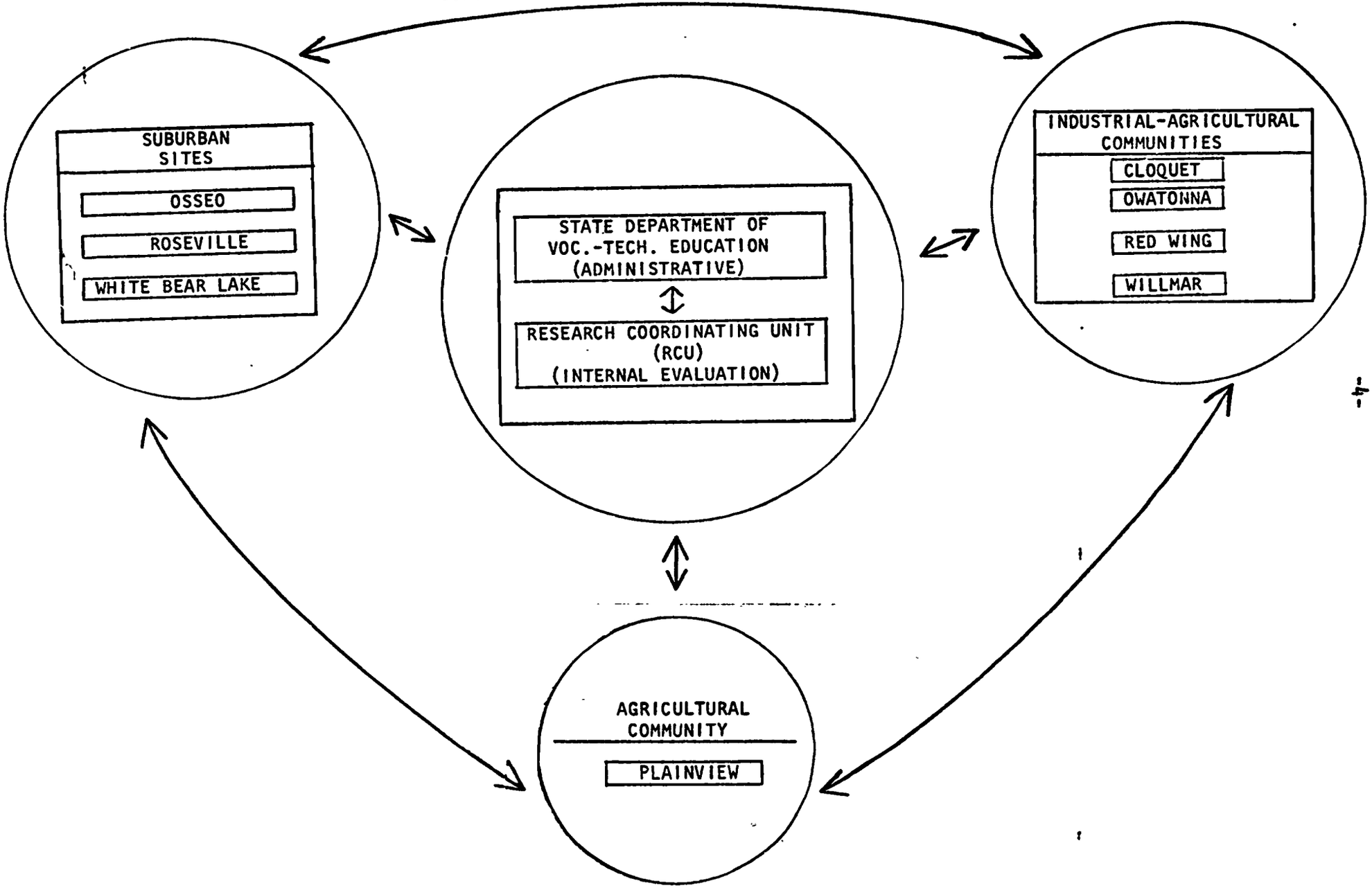
The Minnesota State Department of Vocational-Technical Education has funded eight exemplary career education projects throughout the state of Minnesota. With one exception, all projects have been active since the beginning of the 1971-72 school year. The conceptualization of the Minnesota model is presented in Figure 1.1. At the center of the model is the State Department of Vocational-Technical Education, which is responsible for administration of the projects, and the Research Coordinating Unit of the University of Minnesota, which is responsible for the internal evaluation. These two agencies work very closely in relating to the eight delivery sites. The sites may be generally classified into the three following categories:

1. Suburban Communities: These communities are in close proximity to the Twin Cities Metropolitan area and may be thought of as "typical" metropolitan suburban areas. Included are the sites of Osseo, Roseville and White Bear Lake.

2. Industrial-Agricultural Communities: These communities are generally smaller than the suburban sites, are located out-state, away from the general influence of the metropolitan area, have an economy based on

FIGURE 1.1

CONCEPTUALIZATION OF MINNESOTA MODEL



self-contained industrial plants within the communities and are surrounded by agricultural areas which also contribute substantially to the community's economy. These communities are Cloquet, Owatonna, Red Wing and Willmar.

3. Agricultural Community: The third type of site included in the Minnesota model is characterized by being smaller in population than any of the other communities and having its economy primarily dependent upon the agricultural surrounding areas. The site characterizing this classification is located at Plainview.

Each of the three types of communities, as well as the communities themselves, offers unique aspects to the development of a career education model. The first type of community, suburban, contains large school districts offering a greater variety of services to their students and, consequently, employing more specialists. Thus, many services provided through the project are available through the school district. The suburban sites would have immediate access to almost all of the occupations that are typically found in a large metropolitan area. They would not, however, have immediate access to the agricultural occupations that are found in smaller communities.

The second group, the industrial-agricultural communities, would have immediate access to both industrial and agricultural employment (although not as extensive industrially as the suburban projects) situations normally found in communities of medium size with self-sustaining industry surrounded by agriculture. Found here are many of the same kinds of industries located in the metropolitan areas, although usually not as large and complex. A major influence here is agricultural, while there is a lessening of suburban and/or metropolitan influences.

The final community, Plainview, would have nearly all of its immediate employment possibilities related to the agricultural environment surrounding the community. A project located in a smaller district is more easily adjusted to meet needed changes. Articulation across grade levels appears to be more easily attained. However, the communication with other communities is complicated by the remoteness of the site.

These areas, then, cover the general possibilities which might be found in a state such as Minnesota; namely, a large metropolitan area, an out-state area of small communities, but communities based both on industrial and agricultural economies, and the rural communities based primarily on an agricultural economy.

With the exception of two sites, the remaining sites have concentrated their efforts upon the elementary years in school, namely K-6, during the first year of operation. During the second year of operation, many of the sites have progressed into the junior high and, in some cases, into the senior high school area. Delivery strategies by the sites are varied among sites and also diverse within a site according to different grade levels. At the elementary grades, the activities generally center around orientation programs for students to the various employment opportunities, not only within the immediate area of the project, but also on a broader scale. At the middle grades, more effort is placed on "fact-finding" by students; that is, students doing research papers, doing extended research into specific job opportunities in which they may be interested. This usually involves a broader spectrum of job opportunities than is usually investigated in later grades. In the upper grades, the

primary emphasis has been upon in-depth research into a smaller selected number of job opportunities. This might include in-depth research of various careers by students, or it might include actual participation by students in the employment setting.

One of the primary objectives that runs throughout all the projects is that of instilling within the student a positive attitude toward the world of work. That attitude broadly indicates that all work is respectable work; that all work is necessary within the total economy and that each individual should have and should receive dignity in the particular work that he may be doing. This attitudinal development, together with the familiarization of students with a broad spectrum of job opportunities within the economy is emphasized across all projects.

Presently there is some confusion as to the degree of specificity which should be stressed within grade levels. It follows that many teachers express a need for guidelines and documentation of grade level activities.

II. OBSERVATIONS OF EVALUATION TEAM DURING FIRST ROUND OF SITE VISITS

As indicated in the previous section, the evaluation team visited each of the eight projects and held discussions with State Department personnel involved with the career education model. As a result of these activities, the evaluation team has investigated a number of key variables related to the goal of the original study. Observations resulting from the interviews are tentative in nature and based only upon the initial site visits and first rounds of discussions. Many of the impressions of the evaluation team will be further discussed during the second round of site visits taking place during the month of May, 1973.

This report is presented to the decision-makers as a preliminary set of observations having relevancy to the total operation of the career education model in Minnesota. A number of these observations presented here may be discounted during the second round of site visits. The final report will elaborate on each of the preliminary observation areas, in addition to presenting further information not covered in the first round of site visits. Among these areas will be demographic characteristics of students served and financial information relative to project operations.

The remainder of this section presents observations on the following areas:

2.1 Organizational and Administration Strategies

2.2 Processes and Products

2.3 The RCU and its Involvement in the Model

2.4 The State Department and its Involvement in the Model

2.5 Impressions by LEA Personnel on the Utility of the Eight-Site Model Versus a One-Site Model

2.1 Organizational and Administrative Strategies

The project employed various organizational and administrative strategies. For one project an elementary principal served as project director; in another, a teacher was employed as part-time director; in other projects, vocational education coordinators or directors of systems were utilized as part-time project directors. In at least one system, two directors were assigned. Because of their size, none of the projects employ a full-time project director whose sole duties are the career education project. The larger schools typically utilize the services of the staff member who is already assigned coordinating or directorship responsibilities in the area of vocational-technical education. The middle-sized schools, the industrial-agricultural communities, tend not to have a full-time regular staff member devoted to coordinating or directing the vocational education program. Therefore, these schools employed either teacher personnel or other administrative personnel on a part-time assignment basis for the duties of the project director. This is also true of the agricultural community's school of Plainview. In discussions with project personnel and observations of projects' actions, it appears that the following observations regarding the organizational and administrative structure may be pertinent to consider:

1. There is a direct relationship between progress of project activities and the degree to which the project director is a full-time line administrator. In schools where the project director is either a

principal or central office administrator who has line authority over teachers, it appears that projects are more efficient and productive in their operations. Project directors who have the complete support of line administrators, but who are not themselves line administrators, can function effectively. (NOTE: We are not making a qualitative judgement of the processes or products of the project at this point in time; only the quantity of activity generated and the overall efficiency obs ved.) Of all the projects, the one that appears most efficient is the one in which the career education model is located in one school in which the principal is a half-time project director. In this situation, the director has full line authority over all teachers involved in the project.

The second level of efficiency and amount of project activities appears to rest in areas where the project director is a part-time administrator who does not have line authority. This position is characterized by an administrator who may be a coordinator of vocational education, director of elementary education, etc. In these situations, the project directors are administrators who do have classroom teaching assignments during the day and, although they may be part-time devoted to the career project, they are free to meet with teachers, usually throughout the day, at the convenience of the teachers.

The second level is contrasted with the third level in which teachers have been selected for project directorship on a part-time basis and who have remaining responsibilities as far as classroom education. In these situations, the project director is free only designated hours. The director is usually a secondary teacher who has a half-time teaching load

and can only meet with teachers before or after school or during his designated free hours. This situation appears to limit the access of teachers to the project directors and is subsequently reflected in the level of activity in the project and the degree of efficiency perceived by teachers and the study team observers.

2. Another consideration to the organizational and administrative strategies is the level of commitment by top level administrators in the school district. This situation may also be related to the size of the school district. For example, in the smaller schools, in many instances, the career orientation program was the top priority - or at least one of the top priorities - of the superintendent and top administrators. In the larger suburban area schools, the program of career education often had to contest for time with other worthwhile and needed programs and could not become a top priority commitment of the top level administrators. The evaluation team members gained the distinct impression that where top level administrators were supportive of the program, the reflection on the amount of activities and the offerings of the program were greatly enhanced.

It is the feeling of the evaluation team that top-level administrative support for this project must be a prime concern of career project decision-makers as they plan for the future.

2.2 Products and Processes

The products and processes employed by the eight sites vary considerably, while at the same time, have some commonalities. One of the common threads linking the projects through process is the utilization of

in-service training for teachers prior to the initiation of the project, as well as during the project. All eight sites have to use some type of in-service training for teachers. The results of the training and the enthusiasm of both administrators and teachers for the in-service varies somewhat among the sites, but is generally held in high regard. Project directors and most teachers interviewed indicated that the in-service training provides a background and a backbone of the project.

Many teachers, although doing some things already in the area of career orientation, were really not aware of many of the techniques or of the general philosophy orientation. Likewise, many of the teachers were not aware of the possibilities within their own locality regarding careers and career orientation. Teachers quite often indicated that they felt confident in discussing careers much like their own career; i.e., professional careers such as doctors, lawyers, teachers, etc. Elementary teachers also indicated confidence in being able to discuss with students the traditional careers dealt with in the elementary grades, such as doctors, firemen, policemen, nurses, etc. However, as teachers move away from the more familiar careers to less familiar careers, they voice a strong need for in-service education and familiarity with such careers.

A number of the projects have responded by taking teacher field trip days in which teachers tour companies within and near their local communities to gather first-hand information on various career opportunities. This strategy has been utilized by a number of the projects and it appeared to the study team that this was a very valuable activity

for teacher training. However, this effort has, in some instances, been only an extension of what had been done in the past. In some projects, contacts with industry and field trips are supported in the documentation, but limited in practice by administrative constraints.

Another positive aspect of teacher in-service was that of bringing in outside speakers to speak to teacher groups on the area of career education. In some instances, this constituted a kick-off to the project. In respect to this activity, it appears that its usefulness is short-lived unless it becomes quite specific to various job occupations and tasks. In some instances, where large groups of teachers had gathered to hear speakers, teachers felt that the speakers did not address their questions and that the sessions were not as productive as they envisioned. In sessions held later in the year some of these problems were resolved.

Some projects utilized employer representatives from the local communities to come in and speak to teachers regarding employer expectations of employees. These sessions appeared to be valuable to teachers, especially if they were conducted in small groups in which teachers who attended the group had a genuine interest in the employment area that was being discussed. In general, it appeared that large group settings for in-service were not as productive as smaller group settings which were more specific.

In another activity, which relates both to the process and to the products produced, most of the projects employed teachers for varying amounts of time to develop curriculum and/or career orientation activities for use in their classroom and other classrooms in the project schools. The success of this met with varying degrees under varying circumstances. In

terms of the volume of materials produced, it appears that when teachers are employed for block periods of time, namely, recruited for two weeks or more during summer vacation for curriculum writing duties, that a greater quantity of products, as well as more useful products, are produced than when teachers are recruited periodically on Saturdays to produce curriculum. A number of the project directors indicated that there must be paid time available during the summer months if one is to successfully produce curriculum materials.

In terms of the products produced by the schools, these vary also. There is, within the eight project sites, a varying emphasis on specific curriculum materials. However, all sites except the one which just began during the 1972-73 school year, have produced some curriculum or career orientation activities. These may vary from informal activities which have been distributed by teachers or by the project director to other interested teachers to a formal curriculum manual for career orientation which has been formally adopted by the board of education and distributed to all project teachers at appropriate grade levels throughout the school systems. There appear to be advantages and disadvantages to this technique. Some teachers voiced a strong degree of satisfaction with the curriculum materials in that materials were easily understood by them, directly useable by them and provided valuable experiences for their students. Generally, teachers are requesting some for documentation. Other teachers expressed almost the opposite view. This may in part be due to the type of in-service that was provided to teachers. Some teachers expressed the idea that the curriculum manuals or activity guides were so voluminous and encompassing that they could not see any utility in their application.

In some instances, this could be traced back to the fact that these teachers simply received the curriculum guides or activity packets without any in-service activity or any in-service activity related specifically to the curriculum guides.

One other process related to the production of products is noteworthy. One of the districts is utilizing a system of mini-grants to teachers and their students for project activities. Under this system a formal contract is written with a teacher to develop a given project under certain conditions with production of certain products. The project will then reimburse the teacher with certain materials, supplies, etc., utilized in the project as well as a stipend to the teacher for specific curriculum development. Although this project began operating just during the past year, it offers considerable promise in terms of its processes used to develop products. At least one other project has expressed an interest in adopting this procedure. It appears that there is no relationship between the processes and the products of the sites as related to their size, location or other general descriptors of the project as discussed previously. The only thread that may flow through the projects is the fact that larger projects, namely those in the metropolitan area, tend to select either pilot schools and pilot teachers for both. These systems, for the amount of money available to the projects, are too large to develop the project in an entire school, through an entire school, through an entire grade level, through an entire district. In smaller schools, in some cases, the project has taken all the teachers at certain grade levels, all the teachers at a particular building or even, in some cases, tried to in-service all teachers in the district.

2.3 The Research Coordinating Unit (RCU)*

The Research Coordinating Unit has two major areas of involvement with the Minnesota Career Education Model. First, the RCU acts as an evaluative unit to assist teachers and project directors in the State Department of Education in monitoring the process; the amount of time teachers give to specific career education activities is identified. Second, the RCU has engaged in direct product evaluation as it relates to knowledge and attitudes of students regarding careers.

During the first site visit teachers, directors, administrators and other personnel reacted to the "Self Evaluation of Career Education Instruction," a form designed by the RCU to provide the teachers and the project director with feedback about instructional activities related to career education that would assist them in improving a program and, simultaneously, assist other schools in the state to implement similar programs.

Least familiar with the self-evaluation form were administrators. Higher level administrators generally did not have specific information about the form; thus, their reactions pertained only to the usefulness of this form in a theoretical context. When briefed concerning the evaluation form, the administrators generally felt that the information obtained from the form would be valuable to them.

Teachers and project directors were well informed concerning the self-evaluation form and, overall, reacted positively to the evaluation process. They stated that after some initial confusion in completing the form, very few problems were encountered. When asked to evaluate the

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*The Minneosta Research Coordinating Unit for Vocational Education, located on the University of Minnesota campus.

form concerning its usefulness in the classroom, however, most teachers expressed reservations. Others questioned whether or not the objectives were related to their classes. Even though the teachers seemed to accept the evaluation form as worthwhile, they were quite critical. Some typical criticisms follow:

"Some teachers just complete it as they want it to be."

"It is confusing."

"It does not apply to lower grade levels."

"It is difficult to complete and too time consuming."

Most teachers indicated that they would be able to better evaluate the form when they receive feedback via the printouts.

Project directors were much more positively oriented toward the self-evaluation form than either teachers or administrators. They felt that it was administratively valuable, both at the local and state levels. After some initial problems in completing the form they stated that teachers were generally completing it accurately each month.

One thing is apparent: teachers do not have great enthusiasm for completing the self-evaluation questionnaire. Whether this is an initial reaction which will change upon increased knowledge of the project and reception of feedback remains to be seen. Presently, teachers are not concerned that the data they are providing is going to be of value to them in the classroom, even when summarized and compared to other teacher results.

2.4 The Minnesota State Division of Vocational-Technical Education and Its Involvement

Interviews were structured to elicit responses from school administrators, project directors and teachers who had contact with State Department personnel. Reference was made to design, implementation, progress, communication and evaluation of the project which was directed by the State Division of Vocational-Technical Education.

All people contacted were very positive in their reactions to State Department personnel with whom they have had contact related to this project. They felt that the leadership has been excellent by the personnel directly in charge of the project. Most of the interviewees indicated that it would be advantageous to their project to have more contact and communication with the members of the State Department team. More on-site visits were requested.

In responding to questions relating to the broad spectrum of the State Division of Vocational Education, the people interviewed expressed concerns about what they termed "division" between career-oriented and technical-oriented personnel. Several people stated that they felt this division detracted from the potential progress of the career education project. There is speculation that the top level administrators in the State Department of Education have given career education a lower priority than it held two years previous.

2.5 Eight-Site Model Versus One-Site Model

All people who were interviewed stressed the importance of the eight-site model. The move toward regionalism was cited as one advantage

of the approach where programs can be designed to fit the needs of people in a given area. Propinquity, of course, was another advantage, especially from the viewpoint of out-state project personnel. They felt that being close to the project was of great value to the surrounding schools, as well as for themselves.

The eight-site approach has the advantage of involving more people directly in career education, according to the people interviewed. In this way, it gives teachers a feeling of having a part in the development of the project. The teachers involved will then impress upon others the importance of career education. The evaluation team believes that this did, indeed, play an important part in the success or failure of a project. However, no conclusions can be drawn at this time. It may be that other approaches to involving teachers would be successful. One thing was apparent in our interviews: teachers who had been directly involved or even indirectly involved, possibly through in-service training, were more knowledgeable of the project, appeared more interested in career education and were more directly applying the concepts laid down in the project proposal.

Other advantages cited were the "humanizing" effect of smaller, more diverse projects, less bureaucratic pressure and the flexibility in adjusting the program as time progressed to meet the changing needs of the community.

The evaluation team is not concluding at this juncture that the eight-site model is superior to the one-site model, although the project participants have done so; to a high degree, their reactions were predictive. It should be noted that the one-site model can be viewed as having advantages. Central control, featuring articulation among units,

if the project were efficiently administered, would be viewed as an advantage. The focusing of resources at one site and the creation of materials coordinated closely with program developments may be another. Many of the advantages cited by the members of the eight-site model could also be construed to be an advantage offered by a one-site model. More information is needed before a conclusion can be drawn in this regard. Visits to states having only one model may be necessary.

III. AREAS FOR ADDITIONAL OBSERVATION AND INVESTIGATION

One thing seems certain: the test of the success of a career education program is in its application in the classroom. Three points of information are clearly needed at this juncture: 1) what degree of support is given to the project by top-level administration; 2) we need to know how the teacher in the classroom is involved in teaching career education, and; 3) what the students are gaining from the program.

The key to a successful program appears to be with the commitment by the man at the top and the school board. Without that commitment, teachers are not as likely to become directly involved. In line with this, a project director who believes his position will be eliminated upon the termination of exemplary funding is not likely to dedicate himself to the task. One could expect that students will not gain greatly from a program operating under these conditions.

Our second site visits will focus upon these areas. More attention will be given to the commitment by top-level administrators to gain more insight into their involvement and thoughts about the program. Attention will be given to how administrators and teachers can be attracted to the program.

The involvement of teachers will be more easily measured when the the Research Coordinating Unit completes its analysis of the data received through the teacher self-appraisal form. Student gains will be measured by the tests which will be administered at the end of the year. Thus, conclusions must be delayed until these sources of information can be reviewed with the RCU and State Department officials.