

DOCUMENT RESUME

ED 293 234

EC 202 083

**AUTHOR** Lindskoog, Wayne  
**TITLE** VECTOR A New Direction: Excellence in Education. [Final Report].  
**INSTITUTION** Hennepin Technical Centers, Minneapolis, Minn.  
**SPONS AGENCY** Office of Special Education and Rehabilitative Services (ED), Washington, DC.  
**PUB DATE** Sep 87  
**GRANT** G008430009  
**NOTE** 42p.; Funded by the Youth Employment Projects.  
**PUB TYPE** Reports - Descriptive (141) -- Reports - Evaluative/Feasibility (142) -- Tests/Evaluation Instruments (160)

**EDRS PRICE** MF01/PC02 Plus Postage.  
**DESCRIPTORS** Curriculum; \*Demonstration Programs; Education Work Relationship; Employment Opportunities; Employment Potential; High Schools; Job Skills; \*Mental Retardation; Outcomes of Education; \*Program Development; Program Effectiveness; \*Program Evaluation; School Business Relationship; Skill Development; \*Transitional Programs; \*Vocational Education

**IDENTIFIERS** Minnesota (Minneapolis)

**ABSTRACT**

This final report details the activities of a project called VECTOR (Vocational Education, Community Transition, Occupational Relations). VECTOR sought to increase the employability of severely to mildly mentally handicapped students (aged 18-21) in transition from school to work in the greater Minneapolis, Minnesota, area. VECTOR's objectives were to develop a long-range planning mechanism; incorporate a vocational counseling program; develop social/interpersonal skills, independent living skills, and occupational skills; enhance the attitudinal development of handicapped students; and develop support services to ensure the successful transition from school to work. During the 3-year grant period (October, 1984 through September, 1987), VECTOR provided training and employment to 72 students, 44 of whom egressed to post-school activity. The students' classroom activities were geared primarily to employability skills, independent community functioning, vocational training, and/or community-based employment. The project's effectiveness was evaluated based on student outcomes, consumer responses, and outside evaluations. The evaluation process found that student participation in secondary vocational programs steadily increased and a pool of employers was developed to provide meaningful worksites for VECTOR students. Improvements needed to be made in systematizing parental involvement. The volume concludes with an annotated bibliography of curricular materials and forms for student intake interviews and vocational skills assessment. (JDD)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*



This document has been reproduced as received from the person or organization originating it

Minor changes have been made to improve reproduction quality

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

ED293234



# EXCELLENCE IN EDUCATION

## V · E · C · T · O · R A NEW DIRECTION

C 202 083

Thanks to the following people who helped make the project a success. Without their support and dedication, VECTOR would not have been possible.

Dr. Ron Carter - Superintendent, Intermediate District 287. Bob Manning -Director of Special education; North and South Campus administration and support staff, especially Bob Wrobel and Bob Papas, assistant campus directors; and Marilyn Cook, Ivan Sand and Stephanie Corbey, Support Service Managers. Thanks also to Gretchen Otto and Darla Jackson who provided casemanagement and transition plan facilitation services to students throughout the project, and also Rich Thiesen and Theresa Schrempp, work experience co-ordinators.

Special thanks to Jack Fithian whose assistance and counsel were invaluable throughout the project from beginning to end, and last but not least, the VECTOR instructional staff, along with Rea Brown, project secretary.

**Wayne Lindskoog**  
**Project Co-ordinator**

**South Campus**

Mark Bastiansen  
Mark Bollinger  
Margot Hedlund  
Betty Kenyon  
Mary Beth Millard

**North Campus**

Gary Follett  
Kathy Lettas-Cornwall  
Ruth Jordan  
Judy Klima  
Donna Wozny

Dedication: To Jack Richardson (1928-1987) consulting school psychologist, friend, and mentor whose work had more impact on the lives of handicapped people than anyone could imagine.

# TABLE OF CONTENTS

Part I. . . . .	Page 3
Part II - Project Summary. . . . .	Page 4
Background and Intro. . . . .	Page 4
Project Ecology. . . . .	Page 5
Evaluation Activities. . . . .	Page 8
Project Accomplishments. . . . .	Page 10
Report of State Dept. Of Ed.. . . . .	Page 14
Consumer Survey Results and Discussion. . . . .	Page 16
Consumer Services. . . . .	Page 18
Student Attendance. . . . .	Page 23
Project Replication. . . . .	Page 23
Dissemination Activities. . . . .	Page 26
Conclusions and Recommendations. . . . .	Page 28

## Appendices

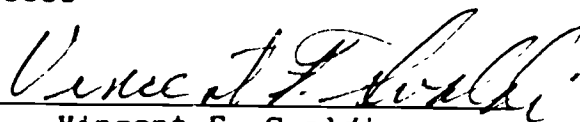
Appendix A Annotated Bibliography of Curricular Materials by Subject Area. . . . .	Page 29
Appendix B Intake Interview - Student. . . . .	Page 35
Appendix C Vocational Skills Review. . . . .	Page 38

PART I

Project Name: VECTOR: A Model to Provide Secondary Vocational Preparation of 18 to 21 year old Special Needs Youth.

Grant Number: G008430009

Project Director:

  
Vincent F. Svaldi

Final Report of Project #023DH40028

Grant Period October 1, 1984 Through September 30, 1987

Report Date: September 1987

Project Director: Vincent F. Svaldi  
1001 Highway #7  
Hopkins, MN 55343

Report prepared by: Wayne Lindskoog, Project Co-ordinator  
9200 Flying Cloud Drive  
Eden Prairie, MN 55344

This project was supported in part by the Office of Special Education and Rehabilitative Services, Youth Employment Projects, U.S. Department of Education, Washington, D.C. 20202

Grantee: Hennepin Technical Centers  
Special Education/Secondary  
Vocational Education  
1820 N. Xenium Lane  
Minneapolis, MN 55441

## **PART II - PROJECT SUMMARY (FINAL)**

**Background and Introduction:** Hennepin Technical Centers Intermediate District 287 is comprised of 13 member districts of suburban Hennepin County in the greater Minneapolis Minnesota Metropolitan area. District 287's primary mission is to provide secondary, post secondary and adult vocational education along with low incidence special education services. In addition, Intermediate District 287 administers an array of other programs including JTPA services, programs for the gifted, for high school drop-outs, for pregnant teens, and outreach programs for handicapped to mention a few.

In the special education realm, District 287 has long provided special education services, instructional and support, throughout member districts at both elementary and secondary levels. As recently as 1983, however a local task force recommendation included considering other alternatives to their current service delivery paradigm, especially for the 18-21 year old mentally handicapped students approaching the transition from school to work. This recommendation spawned the VECTOR proposal in October 1983 to provide vocational preparation, training, and employment for mentally handicapped youth utilizing a transition model based at a vocational-technical school campus.

Concurrently, the federal initiative for transition programming for the handicapped was beginning, due in large measure to Madeline Will's OSERS transition model.

In response to a U.S. Department of Education, Youth Employment Projects request for proposals, a grant application was submitted in March, 1984, which articulated the VECTOR model to be piloted at the District 287 Vocational-Technical Center's, south campus in Eden Prairie, MN. In August, 1984, the grant award was approved for a 3 year period with start-up on October 1, 1984. At that time staff were hired and space/equipment on campus was designated for the project. major efforts were concentrated on identifying students for the program, along with "marketing" the program to potential referral sources, i.e. special education instructors, casemanagers, child study team leads and special education directors. With these tasks underway, actual program start-up began December 10, 1984, serving 14 students from the district's south secondary mentally retarded program's service area. Subsequently, due to an acute need for additional program space in our north secondary service area, the VECTOR model was replicated the following year at Intermediate District 287's North Vocational-Technical Center in Brooklyn Park, MN. This program began in September, 1985 and served 20 students from that service delivery area. To date, VECTOR has provided training and employment to 72 students during the 3 year grant period, 44 of whom have egressed to post-school activity. (Student outcome will be discussed in greater detail later in this report). With this background and introductory material in mind this final report will be devoted to the evaluation of project effectiveness as it relates to outcomes, consumer responses, and outside evaluations which were conducted specifically by a project consultant and a state evaluation team. A discussion of project goals and accomplishments will be included, along with a bibliography of curricular material both commercially and locally produced.

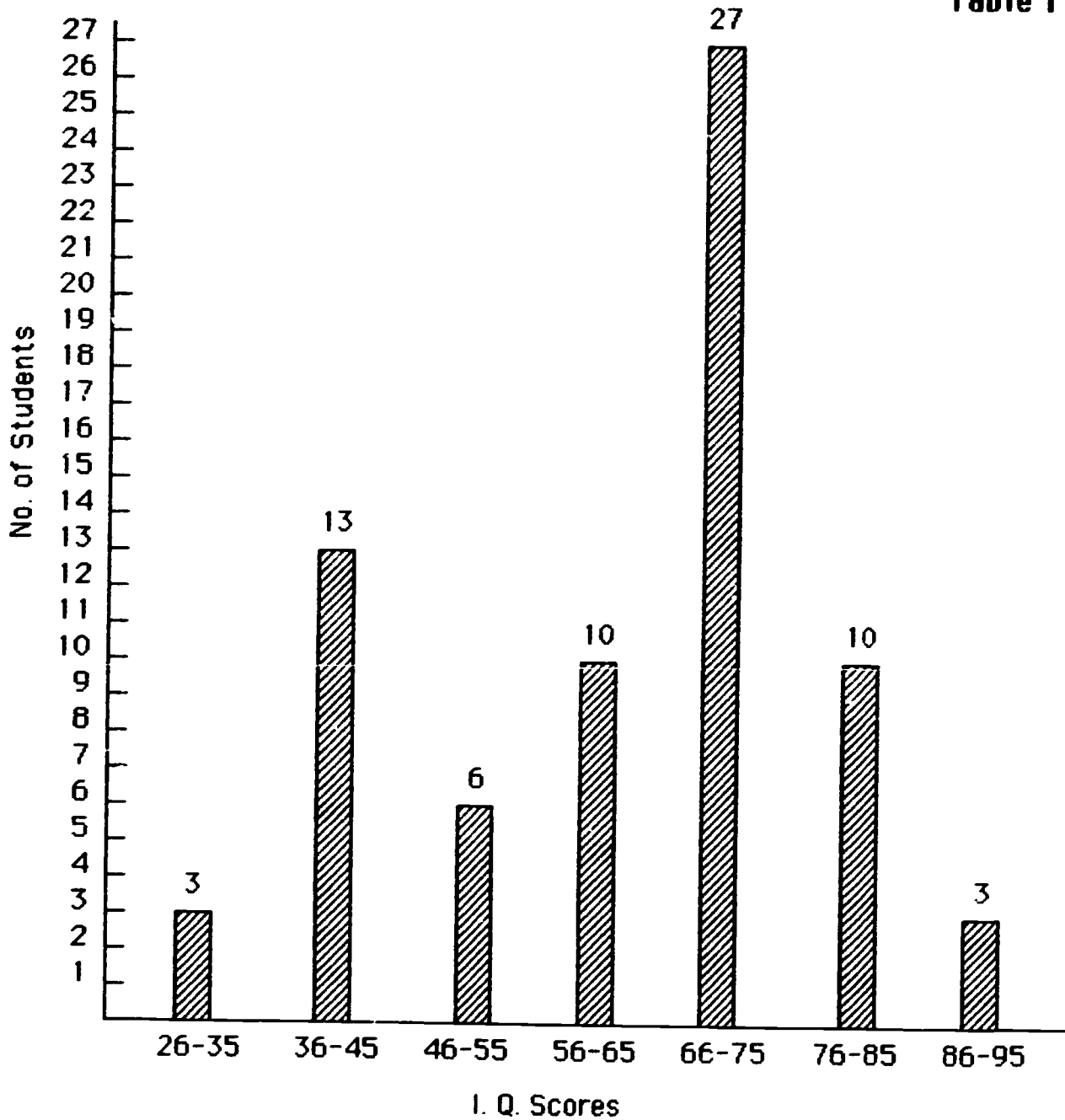
Vocational Education, Community Transition, Occupational Relations are 3 essential components of transition which the VECTOR acronym embodies, however many other components must be in place before effective transition can occur. If no other lesson was learned in our 3 year tenure as a federally funded model demonstration project, we have come to realize that it is not sufficient to merely identify the components, they must be systematized, and this process requires highly varying levels of energy. Our goals and accomplishments will reflect that, and our slippages will accent what **must** be done to achieve an even more effective transition program.

# PROJECT ECOLOGY

## Student Characteristics

VECTOR's target population consists of severe to mildly mentally handicapped youth ages 18-21. Of the total of 72 students served during the grant period, 65 fit that eligibility criteria, while 4 had primary diagnoses of learning disabled, and 3 were diagnosed as emotionally - behaviorally disordered. (SEE TABLE 1)

Table 1



Class Interval = 10  
N = 72

Histogram: VECTOR Student Characteristics  
by I. Q.

In almost all cases, the students prior placement consisted of a special education high school program located in a member district building in which at least part of the school day consisted of mainstream classes and vocational preparation. The extent of vocational preparation usually consisted of community based unpaid career exploration, though in some cases actual paid employment had occurred. Rationale for referral to VECTOR varies, but in a majority of cases it is for one or more of the following:

- 1) High school setting no longer age appropriate.
- 2) More appropriate adult role models in a Vocational-Technical school setting.
- 3) Student in need of a closely monitored or supervised support system while on the job.
- 4) Availability of secondary vocational training options.
- 5) Classroom curriculum emphasizing employability skills and community independence.

Since students referred to VECTOR must still hold eligibility for secondary programming, the majority of students participated in graduation, although diplomas were withheld to avoid termination of eligibility. In all cases they received their diplomas upon completion of VECTOR.

Student referrals were made by the special education directors of the district of residence, or their authorized representative.

Of the total of 72 students served in the project, 56 reside with their parents or with foster parents, twelve live in supervised group homes, while three reside in apartments with periodic supervision, and one student (former) lives independently.

### **Environmental Characteristics**

VECTOR students typically spend 1 to 2 hours per day in classroom activity geared primarily to employability skills and independent community functioning. The balance of the school day involves secondary level vocational training (also on-campus) and/or community based employment. Community placements are located within close proximity to the campuses in 2nd and 3rd tier middle class suburbs of the greater Minneapolis metro area. Transportation to and from worksites is provided by program vehicles. Access to public transportation at this time is extremely limited. Fortunately, however, most job sites are within 5 to 10 minutes of the campuses, thus minimizing drive time.

Student placements in the community are facilitated by one or more incentive options available to employers. The **targeted job tax credit** is frequently used and at times in tandem with a **U.S. Department of Labor approved handicapped worker certificate**, which allows payment of at least 50% of minimum wage. In other cases on the job training wages through the **Division of Rehabilitation Services** are utilized on a time limited basis as an employer incentive. When necessary, VECTOR staff provide training, supervision, and support to students on community job sites, both individually and in enclave situations, on a time limited and an on-going basis.

Initial development of community-based job sites for student placement was conducted in the vicinity of a regional shopping center near our south campus location. Employer response was generally favorable due mainly to manpower shortages in the service industry.

Our intent throughout the project has been to delineate job sites utilized while students are enrolled in VECTOR, from those developed for placement in the student's home community at the time of egression. At our north campus program most of the job sites had already been developed and were being utilized at the time of project start-up. (September 1985) In both cases however, the



work experience co-ordinator at each location was instrumental in employer contact and site development.

## **VECTOR COMMUNITY WORKSITES CO-OPERATING EMPLOYERS-PARTNERSHIP WITH INDUSTRY**

Skateland Janitorial/Custodial	Flagship Athletic Club Janitorial/Custodial
Arnold's Restaurant Dishwasher/Janitorial	McDonald's Corp. Stockroom/Lobby Attendant
Palm Beach Inc. Packaging	Merwin Drug Dishwasher/Busperson
Hennepin County Library Clerical Aide	Pizza Hut Dishwasher/Busperson
Ambassador Care Center Bedmaker/Patient Assistance	Tonka Printing Bindery Worker
Crystal Care Nursing Home Bedmaker/Patient Assistance	Rocky Rococo Pizza Kitchen Helper
Eden Prairie Center Janitorial	Hardee's Restaurant Food Preparation
Burger King Corp. Kitchen Helper	Abby's Restaurant Kitchen Helper
Residence Inn Housekeeper	Kinder Kare Child Care Aide
Ground Round Restaurant Busperson	New Horizons Child Care Child Care Aide
Westphal VFW Busperson	Grobe's Restaurant Dishwasher

On campus secondary vocational training options along with job station activity was developed with the assistance of the campus support service managers. Meetings were arranged departmentally with instructors and staff to explain the project's objectives and goals. While traditionally special needs students have had access to all vocational programs, our efforts were concentrated on entry level competencies that mentally handicapped youth could acquire to facilitate success in community

based employment. In some cases our focus was on specific skill training, but often we opted for more "generic" goals i.e. productivity, physical tolerance, co-worker relations, etc.

VECTOR students access to vocational programs increased markedly as a result of these efforts, and at present a wide variety of programs are being utilized as opposed to early on, when a majority of our students were enrolled in the kitchen assistant program.

## **NORTH AND SOUTH CAMPUS VOCATIONAL PROGRAMS** **Secondary Enrollment of VECTOR Students**

- |                           |                                |
|---------------------------|--------------------------------|
| 1. Landscape Occupations  | 7. Kitchen Assistant           |
| 2. Machine Trades         | 8. Horse Care                  |
| 3. Welding                | 9. Child Development Assistant |
| 4. Graphic Communications | 10. Auto Body Repair           |
| 5. Office Occupations     | 11. Building Trades            |
| 6. Health Careers         | 12. Automated Packaging        |
|                           | 13. Audio Visual Technology    |

A typical student's day, usually consisting of 6.5 hours (390 min.) seldom exceeds 2 hours of actual segregated classroom activity. For most students, the balance of the day includes vocational training or job station assignments with non-handicapped peers and/or community based supported employment in proximity to the campuses. The most recent calculation of integrated activity of VECTOR students indicated that of a total 6.5 hours per day, an average of 4.1 hours are spent in normal environments with non-handicapped peers and co-workers.

## **EVALUATION ACTIVITIES**

**Outcome evaluation:** As of this writing, 44 students have egressed from the VECTOR program. All of these students were mailed a questionnaire in which we asked where they were currently employed, their living arrangements, and the type and extent of post-school community services being utilized. Thirteen questionnaires were returned in the mail and the remaining thirty one were followed up with a telephone or personal contact. The specific employment outcomes are shown in table 2.



# VECTOR STUDENT OUTCOME CATEGORIES

## GRADUATE FOLLOW-UP

DECEMBER 1984 THRU JUNE 1987

N = 44

	ASSEMBLER	1
	KITCHEN HELPER	12
COMPETITIVE	CHILD CARE ATTENDANT	1
UNSUPPORTED	MAIL ROOM/MESSENGER	1
EMPLOYMENT	BAGGER (FOOD MARKET)	1 Part-time*
	JANITOR	2
	CERTIFIED NURSING ASST.	1
	CLERICAL AIDE	1
SUPPORTED	LAUNDRY WORKER	2
COMMUNITY	JANITOR	2
BASED EMPLOYMENT	PACKAGER, HAND	3
	SHELTERED WORKSHOP	9
	DEVELOPMENTAL ACHIEVEMENT CTR.	2
	POST SECONDARY VOCATIONAL TRAINING	
	KITCHEN ASSISTANT	1
	AUTO PARTS	1
	AUTO BODY REPAIR	1
	UNEMPLOYED	3

\*also enrolled in sheltered workshop program

It should be noted that in all but 2 or 3 instances, these outcomes were the direct result of post-school transition plans made while the students were still in the VECTOR program. Early planning minimized time on waiting lists and maximized competitive job success with only time limited support required. Twenty one respondents (former student or parent/houseparent) felt that there were no outstanding areas of help needed at present and were satisfied with the current placement. Three did feel however that they wished they had more personal independence. Thirty one former students still reside at home with parents or foster parents. Eleven live in a group home setting with supervision, while one resides in an apartment with support and another lives totally independent. Community service utilization appears rather evenly distributed among nineteen responses with SSI apparently the service modality among our former students.

Three students are presently unemployed, one of whom left the program voluntarily and moved out of our service area. The other two students are currently in active job search with VECTOR assistance, three former students are enrolled in post-secondary vocational training.

It is noteworthy to point out that most of the twenty students functioning in the competitive job market had secondary or back-up plans in place to guarantee post-school placement in case of job loss. This was necessary particularly for group home residents whose living situations required day programming outside of the residence. In these cases social service and rehabilitation services were part of the transition team as with other students directly entering supported, sheltered, and work activity programs.

## PROJECT ACCOMPLISHMENTS

At the outset of the VECTOR project, eight principle objectives were formulated which pertained to increasing the employability of the mentally handicapped student in transition from school to work. This section will address those objectives along with additional plans identified in our continuing grant application for third year activities.

**Objective I: Develop a long range planning mechanism** - An ad hoc advisory committee was established during the 85-86 school year. The committee was formed expressly for long range planning purposes, comprised of representatives from industry, education, parents, service providers, and a former student. The advisory committee provided input into the District Wide 5 Year Strategic Plan for VECTOR with the following objectives:

1. Continue the VECTOR model on both campuses with state and local funding, as a demonstration of special education/vocational education co-operation and interaction.
2. Provide consistent VECTOR staff/space utilization (classroom) on campuses, based on student numbers, and allowing for moderate fluctuations in growth.
3. Link VECTOR, Vocational Outreach for the Handicapped, and Career Assessment Center into a district-wide "transition network" to facilitate a continuity of services for member district students.
4. Advocate a policy at the state level that would allow secondary education services through age 21 for special needs students, irregardless of a high school diploma.
5. Increase VECTOR student access to secondary vocational programs on campus by establishing a practical communication and assistance network between special education and vocational instructional staff.

Monthly meetings for VECTOR planning are also held with the project director, co-ordinator, casemanagers, and staff to discuss project activities, day to day programmatic plans, and other related matters.

**Objective II: Incorporate a vocational counseling program** - Virtually all students referred to the

VECTOR program participate in a 30 hour career assessment at either the North or South Campus Career Assessment Center. This assessment includes short term work samples/job try-outs, along with occupational information, aptitude and interest testing, and vocational counseling. The assessment often serves as a benchmark for initiating further vocational training or job development. Student access to Career Assessment Center staff is not limited to the assessment period only. In addition, on-going vocational counseling is available through the work experience co-ordinators and casemanagers at each of our two project locations.

### **VECTOR INITIAL STUDENT ASSESSMENT DATA**

Intake Interview Form (Appendix B)

Reading Free Interest Inventory

Social and Pre-vocational Information Battery

### **CAREER ASSESSMENT CENTER COMPONENTS**

#### **Diagnostic Vocational Interviews**

#### **Psychometric Evaluation**

- |                               |                                   |
|-------------------------------|-----------------------------------|
| 1) Minnesota Paper Form Board | 5) Purdue Pegboard                |
| 2) Minnesota Clerical         | 6) Bennett Hand Tool              |
| 3) SRA Math                   | 7) Minnesota Rate of Manipulation |
| 4) Talent Assessment Program  |                                   |

#### **Work Sampling**

- |           |                                                 |
|-----------|-------------------------------------------------|
| 1) Singer | 3) Attainment (Work Skills Development Package) |
| 2) Valpar | 4) Locally Developed Samples                    |

#### **Career Information/Vocational Counseling Job Search/Match Information**

The need for personal adjustment counseling as well as vocational counseling was identified as a high priority for some of our students. As a result, we arranged for periodic group and individual counseling sessions through the auspices of the West Hennepin Community Center, a non-profit community supported social service agency. Their counseling, while geared toward personal adjustment has been extremely effective with students experiencing difficulties with relationships and appropriate behaviors in their daily lives. Students may also continue to receive these counseling services after leaving the VECTOR program.

**Objective III: Develop social/interpersonal skills** - Project staff conducted a needs assessment early in the life of the project and felt that a sex education/family life curriculum would be the most beneficial in addressing social/interpersonal skills. Available materials were surveyed and utilized including sexual abuse prevention. (see appendix A - sex education and family life section). In addition, locally developed materials were also utilized. Project staff developed a pre-test and post-test for sex education in collaboration with a general instructional guideline committee.

Since the level of social skills of our population tended to vary greatly ranging from lone television watching to participation in a variety of organized activities, we attempted to encourage regular attendance at evening and week-end social groups. Often, demographics inhibit students from interacting during non-school hours, since few drive, and access to public transportation is limited

in suburban areas. Parents and group homes must be relied on to provide the necessary transportation arrangements if handicapped youth are to interact in normal environments.

**Objective IV: Develop and deliver independent living skills** - Our original intent in implementing this objective was to provide a live-in experience at a nearby residential facility for students who had not participated in group home living. After consultation with group home staff it was felt the daily cost per student would be prohibitive (\$50.00 per day, per student). At that point we focused our energies on providing appropriate classroom curricula along with community experiences intended to foster growth and independence in activities of daily living. Overall however, since implementation of this objective was altered substantially from our original intent, we would have to rank this as the most disappointing aspect of our 8 primary objectives. Since the overwhelming majority of our students reside with their parents, our emphasis throughout the project has been assessment, readiness, and suitability for group home living and eventual supervised independent living (SILS). Community Service Department referral is essential at this point, and the appropriate county social worker then becomes part of the transition team.

As with development of social interpersonal skills, transportation is again a critical factor in determining independent living outcome. This is particularly true as the severity of the handicap increases (Clowers and Belcher 1979). We conclude that reducing the dependence that handicapped students have on others can be directly related to their access and utilization of transportation resources for vocational and social purposes than any other single factor.

**Objective V: Enhance the attitudinal development of handicapped students** - The vocational-technical school setting has had a profound effect on the attitudes of the VECTOR students. Since the majority of the 1500 vocational students on each campus are post-secondary with an average age of 26, they serve as adult role models who interact daily with VECTOR students enrolled in secondary vocational programs.

Campus activities in general differ significantly from high school activities, thus the physical setting and daily mechanics of the building becomes a part of the VECTOR student's transition into more adult alternatives. The students' individual program allows a much greater focus on vocational activity and community independence, with minimal distraction. Classroom curriculum augments this with specific units in values clarification, socialization, and relationships (see bibliography).

**Objective VI: Develop occupational skills of handicapped youth** - This objective comprised a major thrust of our efforts throughout the 3 year grant period. Basically we utilized a threefold approach consisting of classroom materials emphasizing job seeking/retention skills, campus based vocational training options, and community based employment with both time limited and on-going support.

Beginning with career assessment information we tailored the students' program to individualized occupational activities which were then incorporated into the individual transition plan. Progress throughout the program was monitored jointly by the classroom instructional staff and work experience staff. A locally developed "Vocational Skills Review" was the primary instrument for recording student progress. (see appendix C).

**Objective VII: Develop support service to ensure the successful transition from school to work** - As was discussed earlier, transportation continues to be the most persistent problem associated with job development for VECTOR graduates. The constraints of having to consider job openings within a given geographical area greatly limit the options available to students. Fortunately all of our employment sites utilized while students were enrolled in VECTOR are in close proximity to our campuses. This luxury however, does not exist when graduating students are placed in their home communities. The importance therefore, of the transition team at this point cannot be

over-emphasized. Parents, group home houseparents, or social service caseworkers are called upon to provide either daily transportation or appropriate transportation training to and from the workplace.

Follow along is the primary responsibility of project work experience co-ordinators. Placement of graduating students occurs ideally, well before the end of the school year (30 days or more) to ensure ample staff support time, particularly during the first weeks on the job. Extended contracts for instructional staff allows adequate support services during the summer months, if necessary, when school is not in session.

A key element in the support service milieu is the job coach - who in the VECTOR program are special education assistants holding vocational licenses as technical tutors. These para-professionals are viewed by employers as well as vocational instructors as the **single most** important element in the success of the special needs student. Certified instructional staff who are dually licensed in special education and vocational education, provide classroom instruction as well as work experience co-ordination in compliance with Minnesota's guidelines for approved work experience programs. District wide itinerant personnel are utilized as resource persons when necessary, i.e. hearing impaired, emotional behavioral disordered, physically handicapped, etc.

Casemanagement services, specifically IEP/ITP facilitation is provided by an educational casemanager assigned to each campus. The student's transition plan is developed annually and reviewed at least once during the school year. The casemanager is responsible for assembling the transition team and mobilizing the resources necessary to implement the transition plan and back-up plan as graduation nears.

**Objective VIII: Identification of student** - VECTOR has served 72 students thus far. The project's target population was severe to mildly mentally handicapped, and this group comprised over 90% of our population. Requests to serve other disabilities occurred frequently, specifically physically handicapped, emotional - behaviorally disordered, and learning disabled. We anticipate piloting at least 2 non-ambulatory physically handicapped students in the 87-88 school year. 4 learning disabled students are already being served in the project. Our experience thus far with EBD students has been less than successful, due in large part to that population's reluctance (in general) to be identified or associated with a handicapping condition.

Since project start-up in 1984, transition planning has increased greatly among the member districts, due in large part to the OSERS initiative and Carl Perkins monies available to participating school districts. Within our service delivery area, member districts have designated "Transition Managers" whose responsibilities include creating an awareness of transition options available. These key people, along with special education staff, child study team leads and others have been instrumental in case finding and referral to the VECTOR project. Required referral information includes:

1. Psychological Report
2. Current IEP
3. Completed medical form including student health and immunization record.

Ultimately **all** referrals require approval of the home district special education director or their authorized representative. In addition monthly meetings of member district liaison counselors are attended regularly by the project co-ordinator to keep them appraised of progress, referral criteria and future plans.

Program information, referral criteria and other salient features of the VECTOR project appeared in a local suburban newspaper as well as a monthly newsletter sent to state directors of special education. (Counterpoint July, 1986).

# **REPORT OF STATE DEPARTMENT OF EDUCATION SECONDARY VOCATIONAL ON SITE EVALUATION**

In February and March, 1987 a state evaluation team conducted a program review on both campuses to:

1. Promote and assist local education agencies in the development of quality vocational programs.
2. Encourage maximum utilization and accountability of state and federal funds dedicated to vocational programs.
3. Provide the Minnesota State Board of Vocational Technical Education and the Minnesota Department of education with necessary data for regional and statewide planning and decision making.
4. Assure equal access to all persons.

This review included the VECTOR project as a service unit. Their findings included strengths and commendations along with limitations and recommendations.

## **Strengths and Commendations**

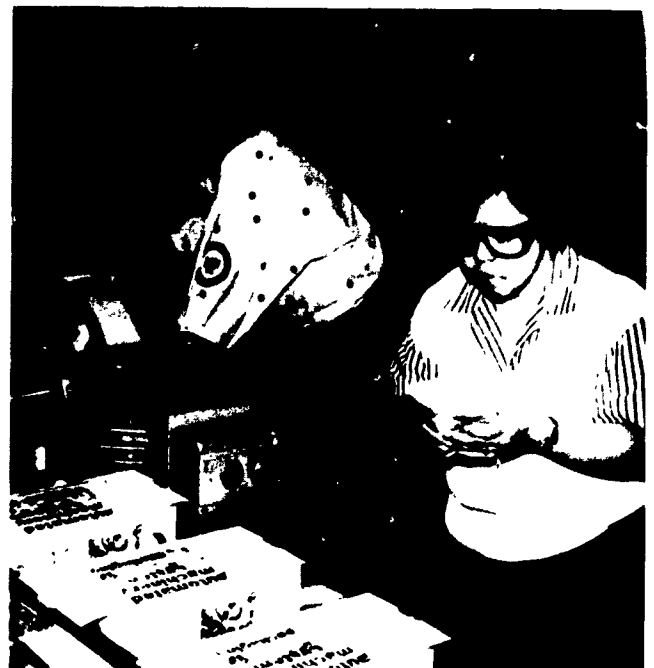
1. Adequately staffed program with licensed, competent staff.
2. There is access to job try-outs with Hennepin Technical Center (Vocational Campus) for evaluation purposes.
3. Well-written, clear, comprehensive reports are being developed.
4. A good internal communication system is in place.
5. The transition planning which is available is a much needed appropriate step.
6. Positive reactions from students and referral sources.
7. Students function as independent workers with necessary support provided to employers.
8. Students are exposed to age appropriate and positive role models.
9. Information gathered from the follow-up survey appears to support staff efforts.

## **Limitations/Recommendations**

1. Evaluate the delivery system of vocational evaluations. Curtail purchase of outside evaluations. In house Career Assessment Service evaluations should suffice, with evaluations occurring at the start of the VECTOR program.
2. Improve interdepartment communication through regular meetings.
3. Relate IEP/ITP objectives more to evaluation findings and recommendations.
4. Reduce transportation responsibilities of work-coordinator. (South VECTOR co-ordinator spends 75% of day transporting students.)



5. Extend VECTOR model to other handicapped individuals.
6. Provide "hands on" independent living skills to this level of students.
7. VECTOR work co-ordinator (South) should have an extended contract for placement and job development during summer months.
8. Base job placement more on student interest or abilities rather than availability of jobs.



## CONSUMER SURVEY RESULTS AND DISCUSSION

The primary third year activity involved assessing project effectiveness by obtaining consumer feedback. Five major consumer groups were identified with an appropriate questionnaire developed for each group.

1. Parents/Group Home Houseparents
2. Former Students
3. Special Education Directors/Staff (referring districts)
4. Campus Vocational Education Staff
5. Employers

A total of 141 questionnaires were sent along with a postage paid return envelope. All questionnaires were brief (1 to 2 pages) overall 74, or 52% of them were returned. As discussed earlier, we followed up the non-response former students with a phone call to obtain employment information on all 44 former students. In the other categories return rates were: 47% for parents/group homes, 46% for special education directors and staff, 56% for vocational staff, and 100% for employers. Responses will be synthesized and discussed by each category, keeping in mind that former student responses have been discussed already in the outcome evaluation.

**Parents/Group Home Houseparents** - All respondents expressed positive feelings about the VECTOR program as a helpful addition to their youth's education. Community-based aspects of the program, involvement in vocational settings, age appropriateness, and practical training were listed as some of the specific developments that pleased parents. In areas of improvement, parents generally felt that more vocational options should be developed, transportation should be improved, and continued emphasis be given self help, behaviors, safety, and sex education. Parents were in unanimous agreement that an adequate school - to - work transition was occurring. However, in several instances while there was satisfaction with the vocational aspects, there was some concern over opportunities for appropriate social interaction in the non-vocational (leisure) realm. Seventeen respondents felt that they have been given adequate information regarding transition services, while six felt they had not.

**Member (referring) District Special Education Directors/Staff** - We queried referring district special education staff as to how VECTOR meets their needs as a transition option. Responses were unanimously positive with comments such as "positive attitude in students who have entered VECTOR", "surely the most important aspect in the child's vocational life", "limited post-high school options and VECTOR provides a valuable service." In responding to what aspects they felt were the most beneficial - the overwhelming response was the supervised (supported) work experience and vocational training. Other responses included having the program located on a vocational campus, and access to campus courses and support services. When asked which aspects of the program should be changed or modified, the overwhelming response was extension of the model to other disabilities. Comments in general were very supportive of continuation of the program and a number of member district special education staff commented specifically that discontinuation of the program would be a major loss of a resource in their post-school planning. Again, there was unanimity

regarding increases in transition planning at the local district level due at least in part to VECTOR and other recent initiatives such as the Carl Perkins Act.

**Vocational Education Staff, North and South Campus** - Vocational campus instructional and support staff were asked to respond as to how they regarded VECTOR as a means to prepare mentally handicapped for employment, whether their experience has been positive or negative, and what suggestions or changes they would advise for program improvement. Again, responses were overwhelmingly positive; however, keeping in mind that questionnaires were given only to instructional staff who had experience with VECTOR students in their programs.

Vocational staff felt that the support provided by VECTOR staff and special needs tutors was an essential element in the success of students in vocational programs. They reported significant student progress and in some cases, despite initial apprehension on the instructor's part, considerable surprise at the level of interest, motivation, and improvement of VECTOR students.

We asked staff if they felt the VECTOR program has been integrated adequately into the vocational system. All responses were positive and comments included:

"Relationship valuable to both populations."

"Pleasantly surprised at how well VECTOR students are accepted by the rest of the H.T.C. students."

"Seems good at this point - should continue to grow as program does."

**Employers** - We mailed questionnaires to all 14 employers who currently employ VECTOR students in partnership with the project. These employers provide the job site and in some cases the daily supervision, though job coaching and support services are available at all times. They also provide wages to the students ranging from \$1.00 hour to \$4.50 plus per hour. We received returns from all 14 employers who were asked to describe their experiences with the program, what aspects seemed to work and what needs improvement, and how they rated student preparation for employment in their place of business. All 14 employers were very pleased with the program and most felt that communication/access to the work co-ordinator and job coach was the single most important aspect. They felt that the students performed a real service on the job and added greatly to the total efforts. For example "A lot of time-consuming (tasks) are being finished ahead of time rather than being put off."

Areas in need of improvement included emphasis on productivity/work pace (this was the modal response), followed by more flexibility in student schedules. (i.e. vacation breaks and days when students were not in attendance due to workshop days, conferences, etc.).

There was general agreement by our employers that students were adequately prepared for community based employment, and that when problems occurred on the job, the job coach was usually able to intervene with minimal disruption. In other instances, communication was easily established to handle potential problems.

**Listed below are typical comments made by our employers.**

1. I always try to make them feel like part of the team effort. It's very tough to do when they feel or perceive that they are different.

2. Our employee has done a great job. we at Burger King, like having her work for us.
3. We are so happy with the system that we'd like to have a few more students work for us. We wish the VECTOR program continued success.
4. Very good program. We look forward to being a part of VECTOR in the future.
5. I have been involved for over 2 years with VECTOR and have had more than 20 employees. It's nice to be able to help other less fortunate and give them a chance to show and be productive individuals.
6. Keep doing what you're doing.

## CONSULTATION SERVICES

The VECTOR Project retained the services of Dr. James Brown, Associate Professor Department of Vocational and Technical Education, University of Minnesota, as consultant. Dr. Brown met with project staff at both sites to gather information on day to day operation as well as overall project effectiveness in meeting goals and objectives. He assisted in development of a conceptual model as well (see fig. 1) Dr. Brown's comments follow.





UNIVERSITY OF MINNESOTA  
TWIN CITIES

College of Education

Minnesota Research and Development Center  
for Vocational Education  
Department of Vocational and Technical Education  
R460 Vocational and Technical Education Building  
1954 Buford Avenue  
St. Paul, Minnesota 55108

June 11, 1987

Wayne Lindskoog, Project Coordinator  
VECTOR  
Hennepin Technical Centers-South Campus  
9200 Flying Cloud Drive  
Eden Prairie, MN 55344

Dear Wayne:

Thanks for the opportunity to serve as External Evaluator for Project VECTOR. My associations with you and the VECTOR Project's staff during the past two years have proven to be a delightful and rewarding experience for me. I am most impressed with VECTOR's accomplishments and I am sure the overall impact and resulting benefits to clients are clear justifications for the extensive time and effort that was required to make VECTOR a reality. I applaud the success of your efforts to meet the goals and objectives specified in the VECTOR Project's proposal.

I have attached a synopsis of my evaluative comments for submission with you final report for the project. If you have any questions or wish additional information from me, please feel free to contact me at your convenience.

Sincerely,

James M. Brown  
Associate Professor of Vocational & Technical Education  
and External Evaluator for Project VECTOR

Attachment: Evaluation comments

# EXTERNAL EVALUATOR'S REPORT

## Project VECTOR

June 10, 1987

### Project Objectives and Related Comments

- 1.O Develop a long-range planning mechanism.
  - a. VECTOR's Advisory Committee has met regularly and has functioned very effectively. Members have provided sound advice and have also contributed freely of their time and moral support. I was pleased to note how positively the Committee members reacted to the basic nature and objectives of this project. Often Advisory committee members can exhibit little real interest in the concepts represented by a special project. Clearly, this committee has been strongly supportive of the project and its staff and students.
  - b. The quality and nature of facilities provided for this project seemed very appropriate in terms of space, location, and esthetics. This project has **not** been assigned to space that no one else wanted -- the school district has provided adequate facilities for this project.
  - c. VECTOR's interactions with other District resources for handicapped students seem to have been established very thoroughly. I am convinced that the relationships already established as a result of this project are permanently entrenched at the Hennepin Technical center campuses.
  - d. The visibility gained by VECTOR's clients has established a much more appropriate mindset among non-project staff at the technical centers regarding the feasibility of having handicapped students enrolled at and attending their institution on a regular basis. This almost certainly has also increased the comfort levels of the "able-bodied" students as they encounter VECTOR students (and others with disabilities) as well.
  - e. My recommendation for possible changes in this area in the future is to explore the feasibility of shifting some of the record keeping responsibilities away from the secretary to professional staff members.
- 2.O Incorporate a Vocational Counseling Program.
  - a. The Career Assessment Centers at both campuses of the Hennepin Technical Center have developed significantly since VECTOR began. The Centers' visibility at the two campuses have enabled their services to be easily accessible and to be devoid of much of the stigma that are typically perceived by students with learning problems.
  - b. Although the Assessment Centers do have a noticeable vocational rehabilitation orientation to them, a wide range of assessment services are not available that will continue to provide useful services for clients served by VECTOR. If these services are expanded to include additional assessment services focused more directly on in-house vocational training programs and more extensive counseling records are kept, I think the assessment services component of VECTOR will serve as an outstanding role model for replications of this project in a wide variety of settings locally, regionally, and nationally.
- 3.O Develop social/interpersonal skills.
  - a. The decision to include curriculum materials focused on sex education and family life issues seems to have been very well-founded. The clients enrolled in VECTOR are clearly in need of such information and have benefited substantially from this instructional content.
  - b. In addition to the locally developed materials, VECTOR staff also selected materials

developed by Jerry Wircenski (Aspen Press) --- I have examined Wircenski's materials previously and I believe they are as good as anything now available. I strongly endorse the continued use and adaptation of these materials.

#### 4.0 Deliver and develop independent living skills.

- a. Clearly, this objective is the one which proved the most difficult to implement. Given the unexpectedly high costs that would have been associated with the operation of a group living facility, there is no doubt that VECTOR staff were correct in their decision to shift their efforts to the development of combination of classroom curricula and community-based experiences. However, I strongly encourage VECTOR staff to continue to seek to identify/develop additional ways in which these independent living skills can be developed effectively. For example, I know that Donn Brolin at the University of Missouri is finishing the development and validation of instrumentation that is designed to assess clients' independent living skills --- Such instruments might serve as the core of subsequent efforts by VECTOR staff to teach these critical skills to the targeted student population.

#### 5.0 Enhancing the attitudinal development of handicapped students

- a. VECTOR's classroom activities indirectly address the development of the skills specified in this objective. However, specific training for these attitude-related skills is primarily offered on a one-to-one basis in the regular classes offered at the Technical Centers and minimally at on-the-job placements. Although this may be an issue worth closer investigation, I see no reason for concern at this time because the current approach seems to be having the desired effect on VECTOR's students.

#### 6.0 Develop occupational skills of handicapped youth.

- a. Obviously this has been (and will continue to be) one of the major focal points of this transition-oriented project. Several useful instructional packages have been identified in the areas of Health Care, Welding, Kitchen Assistant, and Carpentry.
- b. It should also be noted that informal processes have been used to pursue this objective because procedures **must** vary greatly with each student and VECTOR staff are often involved only after placement of students.
- c. One approach that seems worthy of close consideration is the possibility of developing plans for students in the Spring **prior** to the Autumn period in which students will be placed. To carry out this approach may necessitate the use of extended contracts for staff responsible for related job-development activities.

#### 7.0 Develop support services to ensure transition from school to work.

- a. It is not unusual that transportation to (and from) job sites is a continuing problem for VECTOR students. The Hennepin Technical Centers are lucky to be located as closely to a wide variety of potential job sites as is the case while the students are still attending classes. However, job placements will probably continue to be limited by transportation problems **after** VECTOR students have graduated and are no longer located daily in close proximity to their job sites. It seems clear that continued efforts need to be focused by school and community leaders to begin to provide answers to these transportation problems.
- b. I was pleased to hear that information about transition issues are now being included in VECTOR students' IEPs (that was not the case when this project started and I assume that the lack of such information previously was very limiting).

## 8.0 Identification of students.

- a. VECTOR's client population has thus far been limited to mentally handicapped individuals. Although this appears to be an appropriate decision in terms of the efficiency with which curriculum can be developed and field-tested, I don't think that the question regarding what range of mental deficits should be accommodated within the VECTOR Project has been resolved. A wide range of students (from the easily employed to those who are almost impossible to employ) is being enrolled. Perhaps some of the very high and very low functioning students would best be accommodated by other programs specifically designed to meet their specific needs.
- b. Finally, I think that a variety of forms of publicity could be disseminated via the local media to greatly enhance VECTOR's visibility and, thus, parents, students, and potential employers might better identify clients and job opportunities.

### \*\*Other general comments:

I have a few general comments that I would like to present independently of the comments about specific objectives for the VECTOR project.

- a. Initially there was a severely limited collection of 'Employability Skills' curriculum materials available to the VECTOR staff. However, that collection has been expanded substantially.
- b. There were early questions regarding which curriculum topics should be addressed after 'Job Attitudes and Skills' were discussed. The focus on Sex education and Interpersonal Relationships has addressed this question.
- c. What should be done about potential clients who continue to have uncontrolled seizures? There still is no policy regarding these clients and their placement within the community. The Advisory Committee and the School District should address this concern and provide guidance to VECTOR staff.
- d. How can 'Independent living' be taught in a more hands-on fashion and still be within the reach of available resources? Whether or not the VECTOR Project continues to operate, this problem will continue to exist and should be addressed as soon and as thoroughly as is feasible. Perhaps school personnel should meet with community leaders and advocacy groups for the disabled to examine the complex problems presented by this issue. In the meantime, the combination of classroom and community-based experiences should continue to be developed.
- e. VECTOR is an exemplary program that strongly deserves the local support and admiration that it has received. I look forward to its continued operation long after federal funds for VECTOR have been depleted.

Respectfully submitted,

James M. Brown  
External Evaluator for VECTOR Project



## STUDENT ATTENDANCE

During the 1986-87 school year we compiled data on student attendance at our North and South Campus sites, hypothesizing that along with student responsibilities associated with work and training, we could expect low absenteeism in overall attendance in the VECTOR program. With 172 days of student attendance, which equals 6,536 student days, a total of 240 days were missed. The mean number of days absent per student equals 6.3.

Member district high schools indicate that the average number of absences per student in an academic year ranges from a low of 8 in districts with rigid attendance policies, to 10 and 11 days in districts with slightly more liberal policies. In any case the attendance patterns of VECTOR students compare very favorably with high school students.

An acceptable standard of absenteeism in industry is generally one day per month or a total of 9 days in a comparable period. Again, the absenteeism of the VECTOR population is significantly less. In fact, 8 of the 38 students achieved **perfect** attendance for the entire school year.

## PROJECT REPLICATION

The VECTOR project was fortunate in that we experienced a need to replicate the program at our North Campus site beginning in September 1985 (2nd year of grant). This was due primarily to an acute space problem at a member district high school. At that time, the 18-21 year old students who fit the criteria for VECTOR transition planning were identified and transferred to the North Campus program for the 85-86 school year. Our decision also at this point was to establish **consistency** between the two programs as opposed to our other option of a pure research model. (i.e. experimental group vs. control group). That decision was based largely on the fact that the 2 campuses are remarkably similar in both physical and instructional contexts and staffing needs were filled by personnel with special education backgrounds almost identical to original project staff at South Campus.

In considering replication of a VECTOR model in other locales, there are some key elements to consider that make a program such as this unique. First and foremost is program location. While most AVTI's serve special needs populations to a greater or lesser degree, it is unusual to encounter a campus actually hosting a program for students in which the campus becomes the focal point of the students' daily activities. This aspect was the nucleus of our proposal and we strongly recommend this posture for replicability. The unfortunate reality of declining secondary and post-secondary enrollment in many vocational-technical institutions may in fact foster a climate in which those institutions begin to look at new paradigms and alternative ways to provide vocational education. If in fact, little or no attempt is made to develop new and innovative programs for special needs populations under these conditions, it appears even more unlikely it will occur when enrollment is high and vocational programs are full.

A second element necessary for replication of the VECTOR model is the business climate of the surrounding community. Obviously the community-based employment component of the program must be developed with students needs and employer needs in mind. Availability of student workers should coincide with such needs as peak workloads, or in other cases, downtimes for cleaning, set-up, etc. While use of public transportation to and from worksites provides another component, it can conversely have a negative effect if too much of the day is spent riding a bus, transferring, etc.

Vehicles specifically assigned to provide student transportation can minimize travel time and in our case were a necessity.

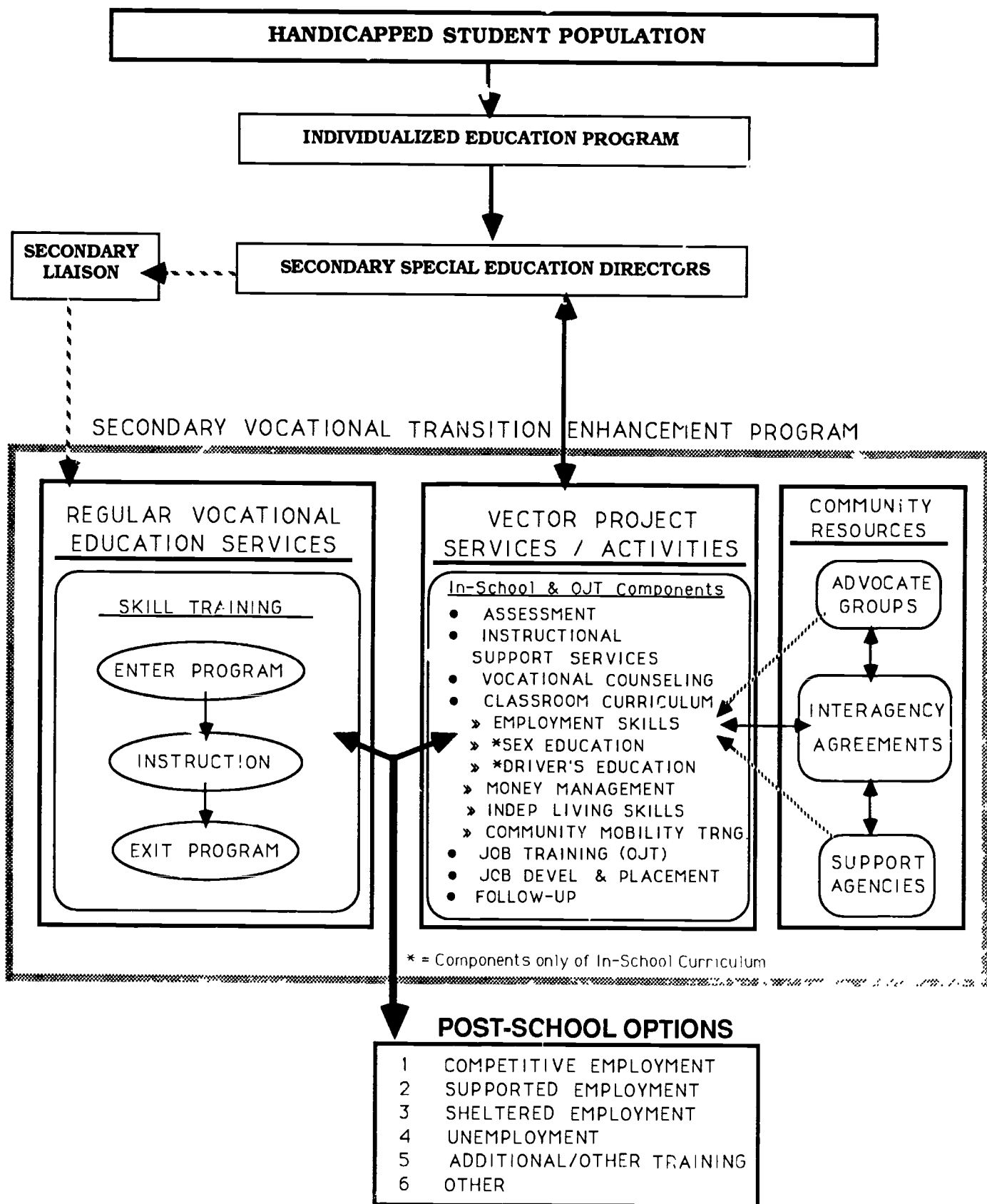
Career exploration (unpaid work experience, job shadowing) was not a major program component. While in a few cases it was necessary (6-8 weeks maximum), we felt that VECTOR students generally should be ready to work for pay, at least sub-minimum, if not minimum wage or more.

Curriculum selection should be done carefully with specific goals and student needs in mind. Choosing and developing materials such as "functional academics" may not be sufficient. We suggest specifically seeking materials that relate to job seeking and retention, materials specific to program goals, and curricula based on periodic needs assessments and ITP development. (see appendix A annotated bibliography). Last, but certainly not least in defining elements necessary for project replicability, are administrative and staff support. Without at least some of one and a lot of the other (take your pick), it would be very difficult to get a program off the ground. It can be extremely helpful if, such as in our district, administration was actively seeking ways to demonstrate special education and vocational education linkage and co-operation. (Carl Perkins legislation has helped in this regard, though VECTOR was pre-Carl Perkins Act, we are proud to say). Staff support, particularly vocational education instructional staff, was enlisted and at times reluctantly obtained. Some programs were simply too technical and not appropriate for our population. Others were "full". In general, however, co-operation was excellent, and with the acceptance of the vocational staff, the program became a part of the daily campus operation. Without it a program would be doomed to stagnation at best.

These are the major elements for replication of the VECTOR transition model. Obviously it is unlikely an identical model could be cloned. We've probably come as close to that in our south & north campus operations. Even so there are subtle differences that give each program an individuality of its' own; yet with a defined process common to both we have maintained a remarkable level of consistency.



# VECTOR TRANSITION PROJECT MODEL



(Designed by J. Brown January 1987)

FIGURE 1

## **DISSEMINATION ACTIVITIES**

Project dissemination activity began with the development of a brochure describing project goals, eligibility, and features. The brochure was intended to be multi-purpose and distributed generally throughout member districts to parents, employers, referral sources, other education personnel, and post-school service providers. In addition, two formative evaluations were developed at the end of year one and year two activity. These evaluations were in essence process analyses that described project accomplishments to date, along with results of a preliminary consumer survey and student outcome data. These materials were sent upon request to approximately 50 other local education agencies, universities, and other facilities nationwide with an interest in transition programs. 150 additional copies were distributed locally and statewide to school districts, state department of education, rehabilitation services, county social service agencies, and interested individuals.

The following presentations and publications were specifically made to describe the project to a wide audience at the local, state, and national level.

### **PRESENTATIONS**

Minnesota Conference on Transition, November 1984  
Minneapolis, Minnesota

National Conference American Vocational Association  
Project Workshop, November 1984  
New Orleans, Louisiana

District 287, Spring Workshop, April 1986  
Eden Prairie, Minnesota

District 287, Special Education Workshop, September 29, 1986  
Hopkins, Minnesota

Day Activity Centers of Minneapolis, Staff Development Workshop  
August 1986  
Minneapolis, Minnesota

### **PUBLICATIONS**

Closing The Gap - June and July 1985

Counterpoint - July 1986

Sun-Current Newspaper - September 30, 1986

Special Net

## COLLABORATIVE EFFORTS

The VECTOR project collaborated on a number of transition related studies designed to gather project data at the national level.

### UNIVERSITY OF ILLINOIS - TRANSITION INSTITUTE

1. Case Studies Project
2. Meta-Analysis
3. Project Characteristics Questionnaire
4. Assessment Practices Survey
5. Annotated Bibliography (project materials)
6. Transition Questionnaire

### RESEARCH TRIANGLE INSTITUTE

1. Needs Assessment
2. Project Abstract

### UNIVERSITY OF WISCONSIN

1. Replicating Jobs in Business and Industry for Persons with Disabilities (Vocational Studies Center)

This final report will be available upon request and will be sent to each of the agencies who requested information and were sent year one or year two formative evaluations.



## CONCLUSIONS AND RECOMMENDATIONS

The 3 years of the project's grant period have certainly been interesting and exciting times for staff and students. Just by the very nature of creating a special education program in a vocational education setting we've surmounted some barriers that many believed couldn't or shouldn't be done. This process certainly wasn't a matter of total acceptance, nor is it after three years. Yet student participation in secondary vocational programs has shown a steady increase during the grant period. Having three VECTOR students successfully complete the nursing assistant exam for State of Minnesota licensure is a tribute to the Health Careers instructional staff and students as well. This may not have been a realistic objective prior to VECTOR. Transition planning throughout the district and in member districts has increased markedly, due in large part to OSERs funding of model demonstration programs such as ours. We have in a very real sense served as a catalyst in emphasizing the need for planning in the student's life from school to work. Robert Schalock talks about a holistic perspective (total personality) in assessing quality of life. We have tried hard to stay with this principle by emphasizing independence, productivity, and community integration.

We probably weren't as effective as we should have been in systematizing parental involvement. Aside from ITP conferences there was minimal parent participation and programmatic input. This was due in large part to the wide geographical area in which students reside. Because of this, activities such as Campus Open House, Secondary Parents Night, and Advisory Committee meetings were essential. We would recommend much greater parent involvement in other similar programs. The commitment and support from parents (which includes group home houseparents) are essential to insuring a successful transition.

We have now developed a pool of employers who have joined as partners with the project and have provided meaningful worksites for students in VECTOR. This relationship has truly been symbiotic and the benefits from these partnerships have demonstrated that industry is willing to work with the educational system in modifying work sites to meet the special needs of people who are mentally handicapped. Conversely, mentally handicapped people given proper supervision, training, and job site modification can make significant contributions to the workforce. In view of this, the "three C's" (Krantz) take on particular importance since it seems we were in various stages of all three at any given point (correct, compensate, and circumvent). Seldom could we approach either a training or employment situation without applying at least one of the three C's.

Development of alternative or non-traditional sources of community based employment proved a dilemma for us. We relied heavily on service occupations for many of our sites. We were partially successful in the printing industry, health care, and packaging occupations for other sources of employment for VECTOR students. In many other potential areas however, the production requirements, level of technical/academic skill, and overall competition for job openings made inroads very difficult.

It appears there may be a point where programs such as VECTOR reach a critical stage of growth at which time the host school may perceive a negative impact of handicapped on the non-handicapped population. While there is no hard data to support this, the size of the vocational campus (enrollment, physical plant) may have some effect on the size of the transition program. Obviously the need for classroom space is a major consideration, and with only moderate growth we have found that additional space remains at a premium.

In conclusion, it appears VECTOR has indeed demonstrated that a special education - vocational education linkage can occur, not perfectly perhaps, and not without problems, but certainly well enough to provide a viable transition option for older secondary level mentally handicapped youth.

**CURRICULAR MATERIALS  
VECTOR PROJECT  
ANNOTATED BIBLIOGRAPHY  
BY SUBJECT AREA**

**VOCATIONAL SKILLS**

**CONSUMER SKILLS**

**SEX ED AND FAMILY LIFE**

**INDEPENDENT LIVING SKILLS**

**COMPUTER DISKS**

**AUDIO-VISUALS**

# VOCATIONAL SKILLS

## **Jobs, Employability, Work behavior etc.**

- 1) Anema D., **Don't Get Fired**. Janus Book Publisher  
Comments: Workbook
- 2) EMC Publishing, **Interviewing for Jobs**, EMC Publishing
- 3) Leonard, Terry., **Real Life Reading Cards** J. Weston Walch, P.O. Box 658, Portland, Maine, 04104-0658  
Comments: Reproducible worksheets and teacher guide, good program.
- 4) Mintz, Herman, **Telephone Use Activity** J. Weston Walch, P.O. Box 658, Portland, Maine, 04104-0658  
Comments: Reproducible worksheets and teacher guide - good program.
- 5) Pitman Learning Inc., **ABLEST Life School**, Fearon Education, Pitman Learning Inc., 6 Davis Drive, Belmont Calif. 94002  
Comments: We didn't use this program as much as the Employability Skills for the Special Learner. Better for the lower functioning student.
- 6) Rand, Kenneth, **Time Card & Paychecks**, Janus Book Publisher, 2501 Industrial Pkwy., W. Hayward, CA, 94545  
Comments: Workbook
- 7) Rand, Kenneth, **My Job Application File**, Janus Book Publisher, 2501 Industrial Pkwy., W. Hayward, CA, 94545  
Comments: Workbook
- 8) Walch, Weston J. **Handling Your Money**, J. Weston Walch, P.O. Box 658, Portland, Maine 04104-0658  
Comments: Workbook
- 9) Walch, Weston J., **Steps to Independent Living**, J. Weston Walch, P.O. Box 658, Portland, Maine 04104-0658  
Comments: Reproducible worksheets and teacher guide - good program.
- 10) Westby, Gibson, Dorothy, Ed. D., Tibbets, John W., Ed. **Lifeschool, Occupational Knowledge and Interpersonal Relations** (a pacemaker program) Fearon Education, David S. Lake Publishers, 1981.  
Comments: Good for guidelines - need to adapt and expand for VECTOR students. Have not used all - just Work Behavior, On-The-Job and Relating Well to Others.
- 11) Wing - **Job Interview**, Wing, 25825 Mission Blvd., Hayward, California  
Comments: Good for interviewing situations/simulated interviews. Cards with interviewing situations on them.
- 12) Wircenski, Jerry L., **Employability Skills for the Special Needs Learner**, Aspen Systems Corporation, 1600 Research Blvd., Rockville, MD 10850



Comments: Excellent! Can be used for various levels. Good for discussion and role playing. Has real life problem solving situations, reading comprehension, and math portions for higher functioning.

- 13) **Physical and Mental Demands of Occupations with Job and Worksite Modifications**, 1984 Minnesota Career Formation System, 635 Capitol Sq., St. Paul, MN 55101

Comments: Extensive file of occupations by D.O.T. codes and titles with descriptions of tasks, physical/mental requirements and examples/suggestions for modifying the work environment.

## CONSUMER SKILLS - MATH, ACADEMICS

- 1) Bradley, Milton, **Bargain Hunter**, Milton Bradley, Springfield, MA 01101, (availability-retail store)  
Comments: Money skill game
- 2) Developmental Learning Materials, **Amusement Park Game**, 7440 Natchez Ave., Niles, IL 60648 (availability thru publishing company or game store/toys)  
Comments: Game board with spinning wheel and fake money.
- 3) Donn Mosenfelder Educational Design, Inc., **Life Skills Math**, (available thru publishing company)  
Comments: Workbook - useful for measurement, fractions, mult., div. and money.
- 4) Schultz, James E., **Book-Mathematics for Elementary School Teachers**, Charles E. Merrill Publishing Company, Columbus, OH 43216 (available thru publishing company or colleges that use this book)  
Comments: Useful when reviewing basic arithmetic. Textbook.
- 5) Rehabilitation Research Foundation, **How to Read a Ruler**, Rehabilitation Research Foundation, Elmore, Ala.  
Comments: Workbook works on measurement  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ , and  $\frac{1}{16}$ .

## SEX EDUCATION AND FAMILY LIFE

- 1) Craig, Carol, **Decisions - About Sex**, Planned Parenthood, 88 E. Post Road, White Plains, NY 10601 (available thru your local Planned Parenthood office)  
Comments: Questions, answer paperback - very good, easily understood.
- 2) **Family Life Test** General Instructional Guidelines, Intermediate District #287, Hennepin Technical Centers  
Comments: Locally developed pre-test/post test for sex education curriculum.
- 3) Fay, Jennifer, Flerchinger Billie Jo, **Top Secret, Sexual Assault Information for Teenagers Only**, King County Rape Relief, 305 S. 43rd, Renton, WA 98055  
Comments: A paperback book. Excellent! Leads to good discussions.
- 4) Kempton, Winifred, **Love, Sex & Birth Control for Mentally Retarded**, (guide for parents), Planned Parenthood Association, 1220 Sansom St., Philadelphia, PA 10107.  
Comments: Guidebook for Parents, very useful.

- 5) **Minnesota Crime Watch, Be on the Safe Side**, Minnesota Department of Public Safety, Transportation Building, St. Paul, MN 55155  
 Comments: Paperback with hints for safety at home and on the street.
- 6) **Painter, John H., Book - Life and Health**, Ziff Davis Publishers Company, Del Mar, California 92014.  
 Comments: Text book, excellent book to use with the higher functioning students, diagrams and good information.
- 7) **Strandlund, Rebecca, Kusy, Mitchel E. Jr., Human Sexuality Curriculum for Junior High Students with Special Needs**, Minneapolis Public Schools.  
 Comments: Excellent, well organized curriculum, pre-test worksheets, worksheets stimulate discussion.

## INDEPENDENT LIVING SKILLS

- 1) **Belina, V., Planning For Your Own Apartment**, Pitman Learning Inc., 6 Davis Drive, Belmont, CA 94002.  
 Comments: Workbook
- 2) **Lobb, Nancy, Steps to Independent Living, How to Get Along On The Job**, J. Weston Walch, Publisher.  
 Comments: Some parts were excellent for all levels, and can be adapted for lower functioning. Some parts just "good" for higher functioning.
- 3) **Minnesota Driver's Manual**, Minnesota Department of Public Safety, Transportation Bldg., St. Paul, MN 55155  
 Comments: The book has also been put on tape with corresponding work sheets for each chapter.

## COMPUTER DISKS (APPLE IIe)

- 1) **Driver Ed.**, MECC (No longer available)
- 2) **Essential Vocabulary - Lifeskills.**, EMC Publishing, 300 York Ave., St. Paul, MN 55101.
- 3) **Flash Spell Helicopter K-9**, CBS Interactive Learning - Division of CBS Inc., One Fawcett Place, Greenwich, CT 06836.  
 Comments: Programmed in words most commonly misspelled on application blanks, etc.
- 4) **Jenny's Journeys**, (ages 10 - adult Map Reading) MECC., 3490 Lexington Ave. N., St. Paul, MN 55112.
- 5) **Math Concepts I & II**, (grades 2 - 6) Hartley C., P.O. Box 431, Diamondale, MI 48821.
- 6) **The Market Place**, (ages 8 - 14 Elementary Economics), MECC., 3490 Lexington Ave. N., St. Paul, MN 55112.  
 Comments: Used as more of a leisure activity. The students enjoy it.

- 7) **The Medalists - Continents** - (grades 4 - 10), Hartley Courseware, Inc., P.O. Box 431, Diamondale, MI 48821.  
Comments: Difficult
- 8) **The Medalists - States** - (grades 4 - 10), Hartley Courseware, Inc., P.O. Box 431, Diamondale, MI 48821.  
Comments: Difficult
- 9) **Path Tactics** - (ages 5 - 12), Math Skills, Math Skills, MECC, 3490 Lexington Ave. N., St. Paul, MN  
Comments: Excellent computer disk used for arithmetic practice with or without a calculator. Can be played as a game with 1 or 2 people.
- 10) **The Print Shop**, (banners, cards, posters), Broderbund Software, 17 Paul Drive, San Rafael, CA 94903.  
Comments: Leisure computer disk - good for following directions.
- 11) **The Print Shop Graphics Library**, Broderbund Software, 17 Paul Drive, San Rafael, CA 94903.  
Comments: Additional graphics for Print Shop program.
- 12) **Time and Money**, (grades 1 - 6), Deegan Learning Materials, Inc., P.O. Box 245, Mankato, MN 56001.  
Comments: A good computer disk to use for review and practice.
- 13) **Using a Calendar**, (ages 5 - 12), Calendar Skills, Hartley Courseware, Inc., P.O. Box 431, Diamondale, MI 48821.  
Comments: Good computer disk which reviews addition, subtraction, multiplication and division.

## AUDIO VISUAL

- 1) **Am I Normal?** (16mm film) available through Hennepin County Library.
- 2) **I Guess I Got the Job**, (job interview - video - cassette), McGraw Hill Films, availability H.T.C., IMC area - South Campus
- 3) **Love Carefully**, (16mm film) available locally only.
- 4) **Menstruation**, (16mm film) available through Hennepin County Library.
- 5) **Teenage Mother: A Broken Dream**, (16mm film) available through University of Iowa
- 6) Ford Motor Co., **Driver Education Series**, 1986 Program Headquarters, P.O. Box 544, Bloomfield Hills, MI 48013.  
Comments: Eight 15 min. VHS video cassettes relating to safe driving. Material geared to teen-age and young adult drivers. Includes teacher's guide and student quizzes.
- 7) **VECTOR: A New Direction**, Media Production, Hennepin Technical Centers, Eden Prairie, MN 55344 - 1985.  
Comments: Locally produced VHS video cassette describing project features, student

interviews. (10 min.)

- 8) **Things to Remember When Applying for a Job**, Media Production, Hennepin Technical Centers, Eden Prairie, MN 55344 - 1985  
Comments: Locally produced UCA 60 video cassette demonstrating job interview techniques. (14 min.)
- 9) Alexander, Dean, **T.I.P.S., Teaching Interpersonal Skills to Mentally Handicapped**, James Stanfield & Company, 1983.  
Comments: Slides worthwhile for introductory use and lower functioning.
- 10) Angard, Judith Andrews, Nancy McCuillough, Sante Angelo-Broderson, Lynda, **Marathon: Making the Effort and Getting Along with Others**, James Stanfield Company, 1984.  
Comments: Some parts very worthwhile, especially for higher functioning. Have used only partially. Filmstrips and audio cassette.
- 11) Foss, Gilbert, Vilhauer, Debra, **Working I: Attitudes and Habits for Getting and Holding a Job**, James Stanfield and Company., 1986.  
Comments: Excellent in presenting problems for discussion. Have used extensively for role playing. VHS/Videocassette
- 12) Foss, Gilbert, Vilhauer, Debra **Working II: Interpersonal Skills. Assessment and Training for Job Tenure**, James Stanfield & Company, 1986.  
Comments: I have not used the assessment VHS Videocassette.
- 13) Champagne, Markly, Warker-Hirsch, Leslie, **Circles: Stop Abuse of Persons with Developmental Disabilities**, James Stanfield & Co.  
Comments: Commercially produced slides & tapes. Haven't used completely, but looks very appropriate and needed for all levels.
- 14) Kempton, Winifred, **Sexuality and the Mentally Handicapped**, James Stanfield & Company, P.O. Box 1983, Santa Monica, CA 90406  
Comments: 9 slide programs and teachers guide. Explores responsibilities and consequences of sexual behavior. Good material for a wide range of cognitive functioning.



VECTOR - INTERMEDIATE DISTRICT 287  
SECONDARY M.R. PROGRAMS

Appendix E

Date \_\_\_\_\_

ECM \_\_\_\_\_

I N T A K E I N T E R V I E W - S T U D E N T

Name: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Age: \_\_\_\_\_

Address: (Student) \_\_\_\_\_

Address: (Parent) \_\_\_\_\_

Social Worker: \_\_\_\_\_ DVR Counselor: \_\_\_\_\_

Name and address of someone who will always be able to locate you: \_\_\_\_\_

1. School (most recent) \_\_\_\_\_ How do you feel you are doing (did) at it? \_\_\_\_\_

(likes, dislikes, comments)

What subjects are you taking? \_\_\_\_\_

\_\_\_\_\_

(likes, dislikes, comments)

2. What school did you go to before? \_\_\_\_\_

How do you feel about school generally? \_\_\_\_\_

3. What do you like to do in your spare time? \_\_\_\_\_

Are most of your friends from school? \_\_\_\_\_ from outside of school? \_\_\_\_\_

Are they mostly (younger, older, same) than you? \_\_\_\_\_

What kinds of things do you and your friends do together? \_\_\_\_\_

4. Do you live with your parents? \_\_\_\_\_ Group home? \_\_\_\_\_ Other: \_\_\_\_\_

When you are older do you think you would like to live in a Group Home? \_\_\_\_\_

Family Composition:      Relationship      Age      (Job or Comments)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How do you spend your time at home? \_\_\_\_\_

\_\_\_\_\_

Do you have regular chores you have to do? \_\_\_\_\_

\_\_\_\_\_

5. Do you get an allowance? \_\_\_\_\_ How much? \_\_\_\_\_ How often? \_\_\_\_\_  
How (else) do you get spending money? \_\_\_\_\_ What kind of  
things do your parents let you buy on your own? \_\_\_\_\_

If you had \$100, what would you do with it? \_\_\_\_\_

Do you save any money? \_\_\_\_\_ Amount \_\_\_\_\_ What are you saving it  
for? \_\_\_\_\_ Checking account \_\_\_\_\_

6. Can you handle city bus routes? \_\_\_\_\_ Other transportation? \_\_\_\_\_  
Have you ever taken any trips on your own? \_\_\_\_\_ Where to? \_\_\_\_\_

7. Do you buy your own clothes? \_\_\_\_\_ Do you select your own clothes to wear  
daily? \_\_\_\_\_ Who helps you? \_\_\_\_\_ Do you get ready for  
school each day by yourself? \_\_\_\_\_ (Grooming - wash face, brush teeth,  
shave) \_\_\_\_\_ Do you wash your hair by yourself? \_\_\_\_\_

8. Have you ever been in any kind of trouble? \_\_\_\_\_ Explain: \_\_\_\_\_

How do you get along with others your age? \_\_\_\_\_

How do you get along with adults? \_\_\_\_\_

Who is the most important person in the world to you? \_\_\_\_\_

What makes you mad quicker than anything else? \_\_\_\_\_

If someone made you mad, what would you do? \_\_\_\_\_

Are you nice to people, even though they are not nice to you? \_\_\_\_\_

What do people tease you most about? \_\_\_\_\_

What would you do if someone stole your lunch? \_\_\_\_\_

9. How is your health? \_\_\_\_\_

Do you often have headaches? \_\_\_\_\_ Pain? \_\_\_\_\_ Are you nervous? \_\_\_\_\_

Does a lot of noise bother you? \_\_\_\_\_

Do you get tired if you stand up a lot? \_\_\_\_\_

Do your eyes hurt or burn? \_\_\_\_\_

Regular doctor (name) \_\_\_\_\_ Address: \_\_\_\_\_

10. Are you employed now? \_\_\_\_\_ Have you done any work for pay? \_\_\_\_\_

Job                      Employer                      Dates                      Pay/Hr.                      Reason Left

\_\_\_\_\_  
\_\_\_\_\_

What kind of work do you think you could do right now? \_\_\_\_\_

If you had the pick of jobs, the best job you can think of, what would it be? \_\_\_\_\_

What kind of work do you think you will be doing 5 years from now? \_\_\_\_\_

Do you plan to get married? \_\_\_\_\_ How much money per day do you think you can make? \_\_\_\_\_ How much do you think you would need to pay all your living expenses for one week? \_\_\_\_\_ How many hours a day would you like to work? \_\_\_\_\_ Do you like working around a lot of people? \_\_\_\_\_

Would you take a job tomorrow for \$1 an hour? \_\_\_\_\_

Would you rather have a job or go to school? \_\_\_\_\_

11. What do you want VECTOR to do for you? \_\_\_\_\_

References: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Interview notes:

A. Grooming: Very Neat \_\_\_\_\_ Average \_\_\_\_\_ Poor \_\_\_\_\_  
Manner: Cooperative & Relaxed \_\_\_\_\_ Average \_\_\_\_\_ Tense & Uneasy \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Possible employment level: \_\_\_\_\_

C. Additional notes, information, etc.: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**VOCATIONAL SKILLS REVIEW**  
**INTERMEDIATE DISTRICT #287**

Appendix C

COURSE 80060 VOCATIONAL \_\_\_\_\_ Student Name \_\_\_\_\_  
 STATUS GROUP# \_\_\_\_\_ STAFF \_\_\_\_\_ /# \_\_\_\_\_ STUDENT NUMBER \_\_\_\_\_ HOME SCHOOL \_\_\_\_\_  
 UNIT 300000 Vocational Skills Review SITE/LOCATION \_\_\_\_\_

KEY SCORES	DATE	DATE	DATE	DATE	DATE
	RATING	RATING	RATING	RATING	RATING
Vocational Skills					
Production Rate					
Attends to Assigned Task					

**COMMUNITY SITE - LEVEL OF SUPERVISION**

\_\_\_\_\_ Full Time Supervised by #287 Staff \_\_\_\_\_ Monitored by #287 Staff  
 \_\_\_\_\_ Monitored by #287 W.E. Coordinator

HOURS PER DAY \_\_\_\_\_ DAYS PER WEEK \_\_\_\_\_

BRIEF DESCRIPTION OF TASK: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**TASK/OCCUPATIONAL AREA**  
**(CIRCLE ONE FROM LIST BELOW)**

**IN SCHOOL JOBS**

- 05 Busing
- 06 Dishwashing
- 07 Pots/Pans
- 08 Food Prep
- 09 Cafeteria/Server
- 10 Janitorial
- 11 Office
- 12 Library Clerk/Shelver
- 13 Factory Assembler
- 14 Laundry
- 15 Other

**INTERNSHIP**

- 21 Busing
- 22 Dishwashing
- 23 Pots/Pans
- 24 Food Prep
- 25 Industrial-Large Scale
- 26 Hotel Houseman
- 27 Hotel Maid
- 28 Restaurant
- 29 Office
- 30 Library Clerk/Shelver
- 31 Factory Assembler
- 32 Laundry-Hotel
- 33 Laundry-Hospital/Nursing Home
- 34 Stockroom Worker
- 38 Other

**VO-TECH**

- 41 Cook/Chef
- 42 Horse Care
- 43 Kitchen Assistant
- 44 Office Occupations
- 48 Other

**CAREER EXPLORATION**

- 51 Busing
- 52 Dishwashing
- 53 Pots/Pans
- 54 Food Prep
- 55 Industrial-Large Scale
- 56 Hotel Houseman
- 57 Hotel Maid
- 58 Restaurant
- 59 Office
- 60 Library Clerk/Shelver
- 61 Laundry-Hotel
- 63 Laundry-Hospital/Nursing Home
- 64 Stockroom Worker
- 68 Other

**COMMUNITY PLACEMENT**

- 71 Placement
- 72 Dishwashing
- 73 Pots/Pans
- 74 Food Prep
- 75 Industrial-Large Scale
- 76 Hotel Houseman
- 77 Hotel Maid
- 78 Restaurant
- 79 Office
- 80 Library Clerk/Shelver
- 81 Factory Assembler
- 82 Laundry-Hotel
- 83 Laundry-Hospital  
Nursing Home
- 84 Stockroom worker
- 88 Other





STUDENT'S NAME \_\_\_\_\_

RATINGS

01	95-100%	06	70-74%	11	45-49%	16	20-24%
02	90-94%	07	65-69%	12	40-44%	17	15-19%
03	85-89%	08	60-64%	13	35-39%	18	10-14%
04	80-84%	09	55-59%	14	30-34%	19	5-9%
05	75-79%	10	50-54%	15	25-29%	20	0-4%

\*\*\*\*\*

JOBS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE	DATE	DATE	DATE	DATE

JOBS

0 2 Production Rate: \_\_\_\_\_ % of NORM

# of JOBS \_\_\_\_\_

# of TIMINGS \_\_\_\_\_

Average length of Timings \_\_\_\_\_

0 3 Attends to Assigned JOB: \_\_\_\_\_ % on JOBS

# of TIMINGS \_\_\_\_\_

Average length of Timings \_\_\_\_\_

HOURS PER DAY AT JOB SITE: \_\_\_\_\_

\*\*\*\*\*

COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Staff person completing form: \_\_\_\_\_