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Effective Recruiting Methods for Four-Year Baccalaureate Industrial Technology Programs

Steven C. Spicher
University of Northern Iowa

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Effective Recruiting Methods for Four-Year Baccalaureate Industrial Technology Programs

Abstract

The purpose of this study was to identify recruiting methods that might be utilized to increase student enrollment in four-year baccalaureate industrial technology programs in Iowa. The recruiting methods identified as effective may be used to increase the number of students enrolled in and graduating from four-year baccalaureate industrial technology programs in Iowa and surrounding states.

EFFECTIVE RECRUITING METHODS FOR
FOUR-YEAR BACCALAUREATE INDUSTRIAL TECHNOLOGY PROGRAMS

Departmental Research Paper
In Partial Fulfillment of the Requirements for
Master of Arts Degree in Industrial Technology

Approved:

Dr. Ervin A. Dennis, Faculty Advisor

Dr. Douglas T. Pine, Faculty Co-advisor

Steven C. Spicher
Department of Industrial Technology
University of Northern Iowa
March 15, 1998

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CHAPTER 1

OVERVIEW OF THE PROBLEM

Enrollment in undergraduate industrial technology programs in Iowa has declined. According to registrar's office records at the University of Northern Iowa (Betts, 1996), the enrollment of undergraduate students in industrial technology programs dropped over 14 percent from 1993 to 1996.

Despite enrollment decreases, the demand for industrial technology program graduates is high. According to the Iowa Department of Education (1989) and the U. S. Department of Labor, the job outlook in Iowa for industrial technology program graduates will remain strong through the year 2000. Additionally, an ASCUS Research report (1995), reports a shortage of secondary industrial technology teachers in Iowa and nationwide. According to Leftwich (1992), education is projected to be the third fastest growing occupation with 750,000 new elementary and secondary teachers needed by the year 2005.

Daugherty and Boser (1993) said, "In the past ten years the philosophy, curricula, and methodologies used to guide the discipline have changed more dramatically than they have in the preceding one hundred years." Effective recruitment methods must be found and utilized to bring new students into industrial technology programs.

Statement of the Problem

The problem of this study was to determine ways to increase student enrollment in four-year baccalaureate industrial technology programs in Iowa. To accomplish this, recruitment methods that had positively influenced enrollment of students in industrial technology programs in the upper, mid-western United States were examined.

Statement of Purpose

The purpose of this study was to identify recruiting methods that might be utilized to increase student enrollment in four-year baccalaureate industrial technology programs in

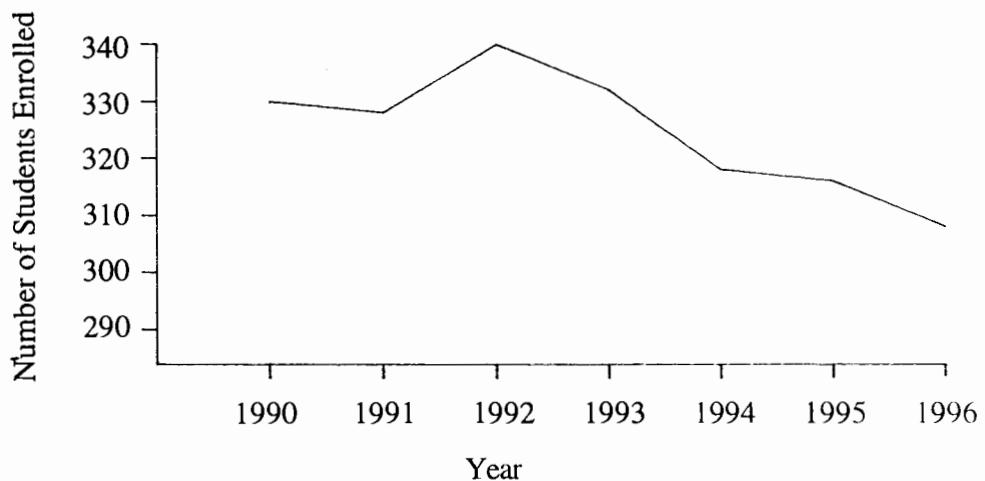
Iowa. The recruiting methods identified as effective may be used to increase the number of students enrolled in and graduating from four-year baccalaureate industrial technology programs in Iowa and surrounding states.

Statement of Need

There was a need to determine ways to increase the enrollment of students in four-year baccalaureate industrial technology programs in Iowa. Student Enrollment in Industrial Technology programs at the University of Northern Iowa has steadily declined over the last five years (Figure 1). The use of more effective recruiting methods may be one way to increase student enrollment.

Figure 1

Student Enrollment in Industrial Technology at the University of Northern Iowa



Fall 1996 enrollment (third week report)

Source: University of Northern Iowa Office of the Registrar

Research Questions

In finding solutions to the problem of this study, three research questions were considered.

1. What is the status of enrollments in industrial technology education, industrial technology (non-teaching), and industrial technology management programs over the past five years?
2. What personnel are responsible for the recruitment of students for industrial technology programs?
3. What recruiting methods have been found effective in recruiting students into industrial technology baccalaureate programs?
4. What is the effectiveness of the total direct recruitment effort in attracting students into the industrial technology programs.

Assumptions

Certain factors are generally taken for granted or assumed in conducting a research study. The following assumptions were made in undertaking this study:

1. One college or university industrial technology department head or chair from each institution would provide accurate data requested by the investigator for purposes of the study.
2. The content validity of the instrument used to gather data would be adequate due to its previous adjudication for use in its source doctoral dissertation.

Limitations

In conducting a research study certain limitations are generally imposed. This study was limited to:

1. Those industrial technology programs which were identified as industrial technology education (leading to a teaching certificate), industrial technology (non-teaching program--for industry), and/or industrial technology management (non-teaching program--for industry).

2. Industrial technology programs in Iowa, Illinois, Kansas, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin.

Time Schedule

Because certain tasks had to be accomplished before other tasks could begin, the management of time was necessary in completing this study. The study evolved over a four month period. Additional time was required for preparation of this final report. The time schedule (Table 1) was constructed at the conclusion of the study.

Table 1

Time Schedule for the Study

Date	Action Taken
August 27, 1996	Begin course 330:270 Research Projects in Industrial Technology
August 28-September 9, 1996	Search for topic
September 24, 1996	Secured Consulting Professor for study
October 1, 1996	Topic selection approved
October 5-6, 1996	Develop Chapter 1 proposal
October 8-22, 1996	Review of related literature
October 9, 1996	Permission given to use survey instrument
October 12-20, 1996	Prepare survey instrument for mailings
October 21, 1996	Cover letter and surveys mailed
October 26-November 3, 1996	Develop Chapter 2
October 28-November 15, 1996	Collect and compile survey data
November 1-6, 1996	Develop Chapter 3
November 16-24, 1996	Analysis of survey data, develop Chapter 4

Table 1 (continued)

Time Schedule for the Study

Date	Action Taken
November 29-December 1, 1996	Develop Chapter 5
December 3, 1996	Submit copies of report to course professor and consulting professor
April 16, 1997	Submit research report to Student Advisor as Departmental Paper
December 28, 1997-	Review additional literature and revise research report

Budget

The completion of this study required few expenditures. Expenses necessary for the preparation and mailing of the questionnaires included: \$9.00 for miscellaneous office supplies (paper and envelopes) and \$19.20 for postage were. The final budget was \$28.20.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Several studies relating to the recruitment of college and university students in industrial technology and in other academic areas have been undertaken. Also, other reports describing trends and issues relating to the recruitment of college and university students in industrial technology have been published.

Recruitment Studies

Gindele (1989) identified recruitment practices influencing enrollment of undergraduate students who specialize in graphic arts. This nation-wide study surveyed faculty and students in 76 college/university graphic arts departments. Results of the study showed a wide difference between faculty and student perception of the effectiveness of the several recruitment methods studied. When combining the recruitment practices experienced by students and those perceived as being effective by students the following top three practices were found effective: offering related general education courses through the graphic arts or industrial education/technology department, indicating to non-majors in the institution the advantages of graphic arts careers, and recruitment packets distributed to those expressing interest.

In the field of home economics, Corley (1991) studied the factors influencing the choice of an academic major by students enrolled in baccalaureate degree programs. It was found that students place more emphasis on personal interest in the program and personal skills and career-related factors, including preparation for career and job opportunities than factors identified as service and experiential. The college catalog is the most important source of information. In general, people are of greater importance as information sources than media items. The study offered several recommendations for recruitment strategies include. Those recommendations were: develop on- and off-campus programs designed to stimulate interest in the home economics areas of study, implement a career development plan, coordinate the academic unit's recruitment plan with the university plan, and intensify

public relations activities directed towards the university, public, and professional communities.

The recruitment of African American students in baccalaureate technology education programs was studied by Johnson (1994). A survey of department heads and chairs of technology teacher education programs was conducted via mail questionnaire to solicit responses. The major strategy found to be effective was the use of African American faculty and African American students as recruiters. Johnson noted that if the technology teacher education field is going to survive, we have to be more innovative and motivated to attract and retain students of all races, including African Americans.

Obi (1989) studied the factors that influenced minority enrollment in the postsecondary vocational-technical education programs in Iowa. Minority high school seniors and students postsecondary vocational-technical education minority students were surveyed by mail questionnaire. It was found that several factors had great influence on minority student enrollment in these programs including: role models, support groups, ethnic culture on the school's campus, program requirements, fear of failure, counseling services, and accessibility to an institution. The results also showed that an overwhelmingly large majority of the students were interested in the programs and had positive opinions about them.

Varner (1990) investigated promotional methods used by two-year and four-year colleges to recruit adult students. The purpose of the study was to describe promotional techniques and measure the frequency of their usage. Mailed questionnaires surveyed 63 administrators of adult and continuing education programs at public post-secondary institutions in Texas. Conclusions drawn from the study were that program directors of these programs rely on a few promotional techniques to reach large, diverse audiences and that they are poorly prepared for the marketing task with few resources (money, knowledge). The study recommended that program administrators explore the use of larger range promotional techniques.

Other Reports Concerning Student Recruitment

Diez (1990) studied the curricular trends of baccalaureate industrial technology programs. Through the use of questionnaires it was inferred that industrial technology will remain a dynamic field of study. Representative trends included: Large student enrollments are found in technical accredited programs. Major courses of study are becoming more diverse. The number of baccalaureate degree courses of study are increasing. Recommendations included a continued diversity but focus on substantive change.

Earshen (1995) investigated the trends and influences affecting industrial management programs at colleges and industries. The study gave strong recommendations that the preparation of industrial managers should be updated through a strong organization of college faculty with incentives toward curriculum design/revision efforts.

Miller and Fuchcar (1995) reported the 1994 recruitment efforts of the Chattanooga State Technical Community College (CSTCC), in Tennessee. In an effort to increase enrollment, the CSTCC adopted a new approach to marketing that included research, program development, outreach, and promotion. Research initiatives included analyses of local economic development, demographic studies, and annual surveys of students. Programs developed in response to findings included 25 specialized, on-site, college-level courses for business and industry. Outreach efforts consisted of mail and telephone recruitment, increasing hours of operation and sites to facilitate registration, disseminating information at malls, organizing town meetings, and visits to high schools and over 175 businesses. With respect to promotional activities, CSTCC offset declines in available resources by utilizing electronic and print media advertising, outdoor display advertising, an information center at the shopping mall, and a cable television "documercial." As a result of these efforts, the college managed to achieve its goal of increasing enrollment rates in the fall 1994 semester.

Previously discussed studies by Obi (1989) and Johnson (1994) point out the importance of minority faculty and role models in attracting minority students to post-secondary technical/vocational programs. Lankard (1994) describes strategies of recruitment and retention of minority teachers in vocational education. Among suggested

strategies to enhance recruitment of minorities are the following: develop candidate pools, promote vocational education in the schools, establish scholarships for minority students, recruit at community colleges, and seek candidate from business and industry. Efforts to retain minority teachers in vocational education include institutional commitment to multicultural understanding and diversity.

A program to recruit women into nontraditional occupations through technical/vocational education and training was described in a report from the Women in Technology (WIT) Program (1994) at El Paso Community College, Texas. Through a private industry council contract and financial support from Rockwell International and Teen Expo of El Paso, WIT was able to conduct several recruitment activities during the 1993-94 fiscal year. Activities included 83 live presentations, 9 media presentations, 49 exhibits, and distribution of 11,000 brochures. The activities resulted in 1,958 presentation contacts and 251 inquiry phone calls. Also, 18 students received referrals for child care services and 20 students received tutoring. WIT has brought about increases in enrollment of women over the past four years and has made modest gains in the number of graduates.

Summary

A review of the literature finds several studies and reports involving the recruitment of specific groups of students and specific areas of industrial education. However, no current studies were indicated, involving the recruitment practices attracting the general population of students to enroll in four-year baccalaureate industrial technology programs in Iowa. This study will focus on determining effective recruitment practices to attract students to these industrial technology programs.

CHAPTER 3

RESEARCH METHODOLOGY

Because the purpose of this study was to identify recruiting methods that might be utilized to increase student enrollment in industrial technology programs in Iowa, the study population consisted of four-year baccalaureate level industrial technology programs in the eight upper, mid-western states. The states selected for the study area were Iowa, Illinois, Kansas, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin. According to information extracted from the Industrial Teacher Education Directory (Dennis, 1995) a total of 30 industrial technology programs exist within the study population. Those 30 industrial technology programs form the population of this study. Names and addresses of the study population data base are listed in Appendix A.

A letter was sent to department heads of each of the industrial technology programs in the study population (see Appendix B). The letter explained the purpose of the study and its potential benefits. It asked the recipient to complete and return the accompanying research questionnaire.

A research questionnaire (see Appendix C) was adapted to collect the information needed to answer the research questions of this study. The form and much of the content of the questionnaire was previously developed by Dr. Joseph G. Gindele (1989) in his dissertation -- Recruitment Practices Influencing Enrollment of Four-Year Undergraduate Students Who Specialize in Graphic Arts -- described in the Review of Literature section. Gindele gave permission to use his material in this study. Content validity of Gindele's questionnaire was provided by a jury of nine graphic arts experts affiliated with education, business, and industry. The questionnaire was also pilot tested in nine colleges/universities.

Questions one and three were designed to request information on the status of student enrollments in industrial technology education, industrial technology, and industrial technology management programs and the institution. Question two was designed to request information on enrollment trends in the program(s) over the last five years.

Questionnaire item four requested the identification of institution personnel accomplishing the recruitment of students for the industrial technology programs. Questionnaire items 5 through 37 were designed to collect data of the respondent's ranking of the effectiveness of several listed recruiting methods. Questionnaire item 38 was designed to collect a list and rating of additional recruiting practices not listed in items 5 through 37. Questionnaire item 39 was designed to collect ratings of the effectiveness of the total direct recruitment effort in attracting students into the industrial technology education, industrial technology, and industrial technology management programs.

The research questionnaire was administered in October, 1996. A research questionnaire, letter, and self-addresses envelope were mailed to department heads of all 30 four-year baccalaureate industrial technology programs that exist within the study population.

A ranking of the 33 recruitment methods was determined by the average effectiveness rating of each method. Respondents rated the effectiveness of each recruitment method on a semantic differential scale from 2 to 5 (see Research Questionnaire, Appendix C). The average effectiveness of each recruitment method was calculated by dividing the sum of the "Recruitment Effectiveness" scale ratings by the number of respondents that used that method. The "Not Used" (scale rating of 1) response offering was used to determine those respondents that did not use that method. This rating was not used in calculating the effectiveness ratings.

A total of 15 research questionnaires forms were completed and returned, of the 30 mailed to department heads of industrial technology programs. There was no additional communication to the department heads as follow-up to the letter and questionnaire. Information from these sources was compiled, evaluated, and organized into this final report.

A thank you letter and a copy of the findings of this study was sent to department heads of each of the industrial technology programs in the study population. The thank you letter (see Appendix D) was sent to acknowledge the participants for their help in the study.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

The respondents to this study represent industrial technology programs having baccalaureate level enrollments totaling 3,346 students. Of that total 446 students (13.3%) are enrolled in industrial technology education programs (leading to a teaching certificate); 1,605 students (48%) in industrial technology (non-teaching) programs; and 1,295 students (38.7%) in industrial technology management programs.

Enrollment trends of industrial technology programs were ranked as having increased, decreased or remained the same over the past five years. The reported trends of the three types of programs are shown in Table 2.

Table 2

Enrollment Trends of Students Concentrating or Majoring in Industrial Technology Program Over the Past Five Years

Industrial Technology Program	Increased	Remained the Same	Decreased
Industrial Technology Education (leading to a teaching certificate):	8	1	3
Industrial Technology (non-teaching program):	1	7	1
Industrial Technology Management:	2	2	1

The number of study participants identifying each type of personnel who accomplish the recruitment of students for their programs is listed in Table 3. Of the 15 questionnaire respondents, eleven said that recruitment for the industrial technology programs is accomplished by the industrial technology faculty. Four respondents said other college/university faculty were responsible for recruiting. Several respondents added

that university recruiters, admissions office advisors, and present students aided in the recruitment of new students into their programs.

Table 3

Personnel accomplishing the recruitment of students for industrial technology programs

Personnel	Number of Institutions	Percentage (%)
Industrial technology faculty	11	73
Department faculty	8	53
Industrial technology faculty in conjunction with department faculty	5	33
Admission advisors/counselors	5	33
College/university faculty	4	27
Advising staff	2	13
University Recruiters	1	6
Students	1	6

A ranking of the 33 researched recruitment methods was determined by the average effectiveness rating of each method measured. Respondents rated the effectiveness of each recruitment method on a semantic differential scale from 2 to 5 (see Research Questionnaire, Appendix A). An effectiveness rating of 2 indicated no effect, 3 indicated little effect, 4 indicated moderate or average effect, and 5 indicated great effect. The mean effectiveness of each recruitment method was calculated by dividing the sum of the "Recruitment Effectiveness" scale ratings by the number of respondents that used that method. A scale rating response of 1 was offered for those respondents that did not use that method. This rating was not used in calculating the effectiveness ratings. Table 4 shows a rank order (most effective to least effective) list of the 33 researched recruitment methods and the average recruitment effectiveness rating of each.

Table 4

Effectiveness of Selected Recruitment Practices

Rank Effectiveness order	Recruitment Practice Experienced by Department Heads	Mean Effectiveness Score
1	Videotape of industrial technology offerings	4.83
2	Personal interviews with students	4.33
3	Impact of modern facilities and programs	4.25
4	Career days on campus	4.10
5	Providing contests on campus for high school students	4.00
6	Visits to community colleges	3.90
6	Recruitment packet	3.90
8	Contacts with high school teachers	3.83
9	Contacts with alumni.	3.82
10	College students recruiting students	3.80
11	Coaches representing the industrial technology program talking to athletic recruits	3.75
11	Scholarships	3.75
13	Contacts guidance counselors	3.73
14	Personal letters	3.73
14	Bring students to campus	3.70
16	Paid recruiters	3.64
17	Indicating advantages of industrial technology careers to non-majors	3.58
18	Presentation to college freshman	3.56
19	General education courses to stimulate interest in industrial technology	3.50

Table 4 (continued)

Effectiveness of Selected Recruitment Practices

Rank Effectiveness order	Recruitment Practice Experienced by Department Heads	Mean Effectiveness Score
20	Contacts with technology teachers or alumni	3.44
21	Presentation to fraternity or sorority organizations	3.33
22	High school visits by faculty/representatives	3.30
23	Posters with tear-off cards	3.29
24	Recruitment conference for secondary school counselors and/or industrial technology teachers	3.20
25	Distribution of brochures to high school and community college students	3.17
26	Display and recruitment at industrial technology conventions/conferences.	3.11
26	Work Study program	3.11
28	Fliers to other college/university department faculty and advisors	3.10
29	Contacts with high school supervisors and administrators.	2.82
30	Newsletters	2.80
31	Display at shopping malls or other locations.	2.33
32	Advertisement on TV, the radio, in a newspaper or magazine.	2.00
33	Introductory course in industrial technology for high school seniors.	1.00

Respondents were also asked to list and rate additional practices they used to recruit students for your industrial technology programs. Additional recruitment methods and effectiveness ratings are shown in Table 5.

Table 5

Effectiveness of Additional Recruitment Practices

Recruitment Practices	Effectiveness
Students recruiting students on campus	5
Cooperative education students visit high school	4
Direct contact between student and advisor	4
Alumni Testimonials	4
Home page on the World-Wide Web	4
Mailings to undeclared under graduate students	3
Recruit at Jr. and Community Colleges	(Reported, But Not Rated)
Computer CD ROM presentations	(Reported, But Not Rated)

Finally, respondents were asked to rate the overall effectiveness of the total recruitment efforts in attracting students into various programs in their institution. The average effectiveness of each program is shown in Table 6.

Table 6

Overall Effectiveness of the Total Recruitment Efforts

Type of Program	Overall Effectiveness
1) Industrial Technology Management	4.00
2) Industrial Technology Education	3.82
3) Industrial Technology (non-teaching)	3.78

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The contents of this chapter include a summary of the study, the conclusions, and recommendations. General recommendations are made including those for further study.

Summary

The primary purpose of this study was to identify recruiting methods that might be utilized to increase student enrollment in four-year baccalaureate industrial technology programs in Iowa. It was intended to increase knowledge of the recruitment process so that future industrial technology recruitment efforts could be more effectively designed, focused, and applied.

The focus of the study involved perceptions of college/university department heads of the effectiveness of recruitment methods they used to attract students into four-year baccalaureate industrial technology programs. A questionnaire was utilized to survey 30 department heads in eight, upper mid-western states.

Conclusions

Based on the analyses of the data from this research and subject to the stated assumptions and limitations of this study, the following conclusions are presented:

1. Enrollment trends in the study area are favorable over the past five years. According to 67% of the study respondents offering a baccalaureate level program in industrial technology education (leading to a teaching certificate), student enrollment in their programs has increased. Almost 78% of respondents offering programs in industrial technology (non-teaching program), report the enrollment of baccalaureate students in their programs has remained the same. Of the respondents offering industrial technology management programs, 40% report an increase in student enrollments while another 40% report student enrollments remaining the same over the past five years.

2. The recruitment of students for industrial technology programs is accomplished by several college/university personnel. Results show industrial technology faculty are the most consistently used personnel to contribute to the accomplishment of recruiting activities. Other college/university faculty, advisors/counselors, and students are also an important part of the recruitment of students into industrial technology programs.

3. Generally, recruitment methods that bring a student in direct contact with the programs are most effective. A ranking of the selected recruitment practices by effectiveness shows most of the ten highest ranking (most effective) recruiting methods bring students into direct contact with the industrial technology program faculty, facilities, and/or students. Study results reporting the effectiveness of additional recruitment practices reported by respondents confirm this conclusion.

4. The recruitment methods that reach the student indirectly are generally not seen as being effective. Results show the recruitment methods that reach students through high school counselors, administrators, and teachers are not as effective as those that provide direct contact.

5. Respondents rate the overall effectiveness of the total recruitment efforts as having an average (moderate) effect in attracting students into the various industrial technology programs. The rating of recruitment efforts of industrial technology management programs (4.0) was rated highest. The ratings of industrial technology education programs (3.82) and industrial technology (non-teaching) programs (3.78) were also within the range for average effectiveness.

Recommendations

These recommendations are based on a review of the related literature, the reporting of the findings, and the conclusions of this study. Hopefully, these recommendations will improve the effectiveness of recruitment for industrial technology students.

1. Industrial Technology faculty should review the findings and conclusions of this study in an effort to improve the enrollment of students in their programs.

2. Recruitment efforts need to be strengthened even more in the recruitment of students in the industrial technology education programs (leading to a teaching certificate), as a shortage of secondary industrial technology teachers is apparent. Students in other industrial technology programs may be encouraged to consider a career in teaching industrial technology.

3. The review of literature suggests that recruitment methods designed to attract minority, female, and non-traditional students should be pursued.

4. The use of recruitment strategies that bring students in direct contact with the programs should continue or increase. This study shows these recruitment methods perceived as being most effective.

5. Faculty should offer related general education courses through the industrial technology departments. The results of this study show this strategy as having an average effectiveness rating. These courses have the potential to bring many students in direct contact with the industrial technology faculty and facilities, which is a desirable condition for recruiting as also indicated by this study. These courses could stimulate an interest in industrial technology of some college students who have not yet decided on an academic major.

6. Recruitment efforts should be always expanding through the use of new communication technologies. Two respondents to the study noted the use of the Internet and computer CD ROM presentations by their university for recruitment purposes.

7. Faculty should re-examine and possibly discontinue the use of certain recruitment methods based on the findings of the perceived recruitment effectiveness of these practices.

Recommendations for Further Study

Additional recommendations are warranted in extending and improving upon this study. Such recommendations are made as follows:

1. Replication of this study in specific states or regions of the county is recommended with the goal of improving student enrollments.

2. This study should be repeated in five years to determine new recruitment methods and whether changes have occurred in the recruitment methods effectiveness.

3. Further development of recruitment methods designed to attract minority, female, and non-traditional students should be pursued.

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APPENDIX A

STUDY DATA BASE

Illinois

Dr. Edward J. Reinhart, Chairman
Department of Occupational Education
Chicago State University
Chicago, IL 60628

Dr. Tommy L. Waskom, Act. Chairman
Technology Education
Eastern Illinois University
600 Lincoln
Charleston, IL 61920

Dr. Franzie L. Loepp, Chairman
Department of Industrial Technology
Illinois State University
Normal, IL 61790

Dr. Charles E. White, Act. Chairman
Department of Technology
Northern Illinois University
DeKalb, IL 60115

Dr. Timm L. Wentling, Dept. Head
Department of Vocational and Technical
University of Illinois
1310 S. Sixth Street
Champaign, IL 61820

Dr. Thomas G. Bridge, Chairman
Department of Industrial Education
and Technology
Western Illinois University
1 University Circle
Macomb, IL 61455-1089

Iowa

Dr. John C. Dugger, Chairman
Industrial Education and
Technology Department
Iowa State University
Ames, IA 50011-3130

Dr. Mohammed F. Fahmy, Dept. Head
Department of Industrial Technology
University of Northern Iowa
1222 West 27th Street
Cedar Falls, IA 50614-0178

Dr. Jim L. Drost, Chairman
Industrial Technology Department
William Penn College
North Market Street
Oskaloosa, IA 52577

Minnesota

Dr. Thomas R. Sunnarborg, Chairman
Industrial Technology Department
Bemidji State University
Bemidji, MN 56601-2699

Mr. William J. Brown, Professor
Department of Business and Technology
Mankato State University
Mankato, MN 56002-8400

Dr. Wade T. Swenson, Chairman
Department of Industrial Studies
Moorhead State University
1104 Seventh Avenue South
Moorhead, MN 56563

Dr. William J. Lacroix, Chairman
Department of Industrial Studies
St. Cloud State University
720 Fourth Avenue South
St. Cloud, MN 56301-4498

Minnesota (cont.)

Dr. David L. Pucel, Dept. Head
Industrial Education
University of Minnesota
1954 Buford
St. Paul, MN 55108

Missouri

Dr. Arthur J. Rosser, Dean
College of Applied Sciences and
Technology
Central Missouri State University
Warrensburg, MO 64093

Dr. Jack G. Spurlin, Coordinator
Industrial Technology Department
Missouri Southern State College
3950 Newman Road
Joplin, MO 64801-1595

Dr. Keith L. Johnston, Dept. Head
Department of Technology
Southwest Missouri State University
901 South National Avenue
Springfield, MO 65804

Dr. Rob R. Stewart, Chairman
Department of Technology and
Industrial Education
University Of Missouri
6th and Stewart Streets
Columbia, MO 65211

Dr. Marshall Holman, Dept. Head
Department of Computer Science,
Technology, and Industrial Education
Lincoln University
Jefferson City, MO 65102-0029

Dr. Randall D. Shaw, Chairperson
Department of Industrial Technology
Southeast Missouri State University
One University Place
Cape Girardeau, MO 63701

Dr. Eldon Divine, Chairman
Technology Department
College of the Ozarks
Point Lookout, MO 65726

Nebraska

Dr. Jimmy W. Stokey, Chairman
Department of Industrial Technology
Chadron State College
1000 Main Street
Chadron, NE 69337

Mr. Robley W. Evans, Professor
Industrial Technology and
Education Department
Peru State College
Peru, NE 68421-0010

Dr. Larry D. Kruskie, Dept. Head
Department of Industrial Technology
University of Nebraska at Kearney
905 West 25th
Kearney, NE 68849-2120

Dr. George E. Rogers, Dept. Head
Program of Industrial Education
University of Nebraska
517 Nebraska Hall
Lincoln, NE 68588-0515

Nebraska (cont.)

Dr. Don E. Cattle, Dept. Head
Industrial Technology Education Department
Wayne State College
1111 North Main Street
Wayne, NE 68787

South Dakota

Mr. Jerry D. Miller, Chairman
Department of Mathematics, Physics,
and Technology
Black Hills State University
1200 University
Spearfish, SD 57783

Sequin, Dr. Armand, Director
Division of Vocational Technical Education
Dakota State University
820 North Washington Street
Madison, SD 57042-1799

Dr. Saraf Rehman, Coordinator
Industrial Technologies
Northern State University
12th Avenue and Jay Street S.
Aberdeen, SD 57401

Wisconsin

Dr. Bruce E. Siebold, Dean
School of Industry and Technology
University of Wisconsin-Stout
1102 Union Street
Menomonie, WI 54751

APPENDIX B
LETTER ACCOMPANYING QUESTIONNAIRE

Steven C. Spicher

Mt. Vernon, Iowa 52314
Phone

October 22, 1996

Department Head
Industrial Technology Department
College/University
Address
City, State Zip Code

Dear Department Head,

I am developing a study, Effective Recruiting Methods for Four-Year Baccalaureate Industrial Technology Programs. This research study is part of my required work in the Industrial Technology Masters degree program at the University of Northern Iowa. The need and importance of this study is supported by leaders in education and the literature.

The problem of this study is to determine ways to increase enrollment of students in four-year baccalaureate industrial technology programs. The purpose for conducting this research is to identify recruitment methods that can be utilized by industrial technology faculty members, like yourself, to increase undergraduate enrollment of students majoring in Industrial Technology. Hopefully, this study will be beneficial to you and your program, as well as to industry itself.

Would you please take a few minutes to complete the enclosed questionnaire and return it to me postmarked on or before November 1st in the enclosed, self-addressed stamped envelope? Please call if you have questions or comments. Thank you very much!

Professionally yours,

Steven C. Spicher

Enclosures: Research Questionnaire
 Stamped, self-addressed envelope

RESEARCH QUESTIONNAIRE

Code _____

Effective Recruiting Methods for Four-Year Baccalaureate Industrial Technology Programs

1) Does your department offer students a "concentration, major, or emphasis" in the area of industrial technology (more than just merely one or two courses in industrial technology) leading toward the baccalaureate degree--in any or all of the following programs? PLEASE CHECK YES OR NO. IF YES, PLEASE GIVE NUMBER OF CURRENTLY ENROLLED STUDENTS WHO HAVE A "CONCENTRATION, MAJOR, OR EMPHASIS" IN EACH OF THESE PROGRAMS:

	YES	NUMBER	NO
_____ a. industrial technology education (leading to a teaching certificate):	_____	_____	_____
_____ b. industrial technology (non-teaching program--for industry):	_____	_____	_____
_____ c. industrial technology management (non-teaching program--for industry):	_____	_____	_____

2) In #1 above, to the left of the "a." and "b." and "c.", please place the letter(s) "I" or "D" or "RS" if any of these programs have been "INCREASING," "DECREASING," or "REMAINING THE SAME" in the number of students concentrating or majoring in that program at your institution in the past five years.

3) How many undergraduate students in all areas of study (not just industrial technology), are enrolled in your:

a. College/Univ. (your specific geographical site): _____ (Approx.)

b. Industrial Technology Dept. (Ind. Arts/Ind. Educ., etc.): _____ (Approx.)

4) Recruitment for your industrial technology program(s) is accomplished by:
(Please circle all that apply for industrial technology programs)

- (1) Industrial technology faculty
- (2) Industrial technology faculty in conjunction with department faculty
- (3) Department faculty
- (4) College/University faculty
- (5) Other (Please explain) _____

Please review the following list of "recruitment practices" and identify those used to attract students in your four-year baccalaureate industrial technology programs, by college/university faculty.

		Recruitment Effectiveness			
<u>Recruitment Practices</u> (for industrial technology)	<u>NOT USED</u> (1)	<u>No Effect</u> (2)	<u>Little Effect</u> (3)	<u>Moderate/ Average Effect</u> (4)	<u>Great Effect</u> (5)
<u>Personal Communication</u>					
5. Personal letters to interested high school students.	1	2	3	4	5
6. Personal interviews with high school or coll/univ. students	1	2	3	4	5
7. Contacts with high school guidance counselors.	1	2	3	4	5
8. Contacts with high school industrial technology teachers.	1	2	3	4	5
9. Contacts with industrial technology alumni.	1	2	3	4	5
10. Contacts with other high school "technology" teachers or alumni.	1	2	3	4	5
11. Contacts with high school supervisors and administrators.	1	2	3	4	5
12. Visits to high schools by coll./univ. industrial technology faculty/representatives.	1	2	3	4	5
13. Visits to community colleges by coll./univ. industrial technology faculty/representatives.	1	2	3	4	5
14. Coll./univ. paid recruiters traveling the state or country.	1	2	3	4	5
15. Coll./univ. industrial technology students recruiting other Coll./univ. or high school students.	1	2	3	4	5
16. Presentation to college freshman -- during freshman orientation.	1	2	3	4	5
17. Presentation to fraternity or sorority students.	1	2	3	4	5

Recruitment Effectiveness

<u>Recruitment Practices (cont.)</u> (for industrial technology)	<u>NOT USED</u> (1)	<u>No Effect</u> (2)	<u>Little Effect</u> (3)	<u>Moderate/ Average Effect</u> (4)	<u>Great Effect</u> (5)
18. Coll./univ. coaches representing the industrial technology program to athletic recruits.	1	2	3	4	5
<u>Literature and Media</u>					
19. Industrial technology display at shopping malls or other locations.	1	2	3	4	5
20. Display and recruitment at annual industrial technology conventions/conferences.	1	2	3	4	5
21. Distribution of brochures to high school and community college students describing the coll./univ. industrial technology program.	1	2	3	4	5
22. Distribution of fliers to other coll./univ. department faculty and advisors across campus (outside of industrial technology) with industrial technology course offerings.	1	2	3	4	5
23. Use of posters with tear-off cards advertising coll./univ. industrial technology program to high school and community college students.	1	2	3	4	5
24. Recruitment packet for any interested party.	1	2	3	4	5
25. Filmed presentation (slides, slides and audio, videotape) of industrial technology offerings.	1	2	3	4	5
26. Newsletters for high school industrial technology teachers from coll./univ. industrial technology faculty.	1	2	3	4	5
27. Advertisement of industrial technology programs on TV, the radio, in a newspaper or magazine.	1	2	3	4	5
<u>Coll./Univ. Program and Facilities</u>					
28. Indicating to non-majors in the institution advantages of industrial technology careers, by industrial technology faculty.	1	2	3	4	5

Recruitment Effectiveness

<u>Recruitment Practices (cont.)</u> (for industrial technology)	<u>NOT USED</u> (1)	<u>No Effect</u> (2)	<u>Little Effect</u> (3)	<u>Moderate/ Average Effect</u> (4)	<u>Great Effect</u> (5)
29. Encouraging secondary.(grades 7-12) industrial technology teachers to bring their students to campus.	1	2	3	4	5
30. Impact of modern facilities and programs attracting high school students and their parents to the industrial technology program during visits to the coll./univ.	1	2	3	4	5
31. Offering related general education courses through industrial technology department which stimulate the interest of coll./univ. students who have not yet decided to concentrate or major in industrial technology.	1	2	3	4	5
32. Providing contests on campus for high school students.	1	2	3	4	5
33. Providing career days, open house, or conference activities on campus for high school students.	1	2	3	4	5
34. Coll./univ. faculty conducting annual recruitment conference on campus for secondary school counselors and/or industrial technology teachers.	1	2	3	4	5
35. Offering a coll./univ. credit introductory type course in industrial technology for high school seniors.	1	2	3	4	5
<u>Other</u>					
36. Scholarships for industrial technology coll./univ. programs.	1	2	3	4	5
37. Work Study program for industrial technology coll./univ. programs.	1	2	3	4	5

Recruitment Effectiveness

<u>Recruitment Practices (cont.)</u> (for industrial technology)	NOT <u>USED</u> (1)	No <u>Effect</u> (2)	Little <u>Effect</u> (3)	Moderate/ Average <u>Effect</u> (4)	Great <u>Effect</u> (5)
38. Please list and rate additional practices <u>used</u> to recruit students for your industrial technology program, that were not previously listed.					
1) _____ _____ _____	1	2	3	4	5
2) ¹ _____ _____ _____	1	2	3	4	5
3) _____ _____ _____	1	2	3	4	5

39. Overall, how effective are the total direct recruitment efforts in attracting students into various programs in your institution? (Please circle a response [1-5] for each program)

<u>Type of Program</u>	Not Appli- cable (1)	No <u>Effect</u> (2)	Little <u>Effect</u> (3)	Moderate/ Average <u>Effect</u> (4)	Great <u>Effect</u> (5)
1) Industrial Technology Education	1	2	3	4	5
2) Industrial Technology (non-teaching)	1	2	3	4	5
3) Industrial Technology Management	1	2	3	4	5

APPENDIX D
THANK YOU LETTER

Steven C. Spicher

Mt. Vernon, Iowa 52314

February 28, 1998

Department Head
Industrial Technology Department
College/University
Address
City, State Zip Code

Dear Department Head,

In October of 1996, I asked you to participate in a study I was developing, Effective Recruiting Methods for Four-Year Baccalaureate Industrial Technology Programs, by completing a study questionnaire. This research study was part of my required work in the Industrial Technology Masters degree program at the University of Northern Iowa.

The problem of this study was to determine ways to increase enrollment of students in four-year baccalaureate industrial technology programs. The purpose for conducting this research was to identify recruitment methods that could be utilized to increase undergraduate enrollment of students majoring in industrial technology.

I wish to thank you for your participation in this study and to share the results of the study with you. Hopefully, this study will be beneficial to you and your program, as well as to industry itself.

Professionally yours,

Steven C. Spicher

Enclosures: Copy of Study Results

VITA

Name: Steven Charles Spicher

Address: Mt. Vernon, Iowa 52314

Birthplace: Iowa

Date of Birth:

Parents: Charles Elmer Spicher (from Iowa)
Shirley Ann Holst (from Iowa)

Education: University of Northern Iowa
Cedar Falls, Iowa
M.A. Industrial Technology, 1998

University of Northern Iowa
Cedar Falls, Iowa
B.A., Industrial Technology Education, 1983

Central High School
Waterloo, Iowa
Academic Diploma, 1979

Work Experience: Industrial Technology Teacher
Mount Vernon High School
Mount Vernon, Iowa, 1985-98

Professional License: Industrial Technology, 7-12

Professional Affiliation: Iowa Industrial Technology Education Association