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**A STUDY OF PRINTING MANAGEMENT GRADUATES
OF SOUTH DAKOTA STATE UNIVERSITY
1956 TO 1970**

**BY
BRUCE OTTO OBERLANDER**

**A thesis submitted
in partial fulfillment of the requirements for the
degree Master of Science, Major in
Printing Management, South
Dakota State University**

1971

A STUDY OF PRINTING MANAGEMENT GRADUATES
OF SOUTH DAKOTA STATE UNIVERSITY
1956 TO 1970

This thesis is approved as a creditable and independent investigation by a candidate for the degree Master of Science, and is acceptable as meeting the thesis requirements for this degree, but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Adviser

Date

Head, Department of Journalism
and Mass Communication

Date

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CHAPTER I

INTRODUCTION

History

To understand fully the reason for this study of printing management graduates of South Dakota State University between 1956 and 1970, it will be helpful to examine briefly the history and development of the printing management program.

Printing education at South Dakota State University was authorized in 1919 when the Regents of Education moved that the Board should "solicit bids and make purchases" for a printing facility on the Brookings campus. In March, 1920, the School of Printing began operation in the basement of Old North Hall with Seth Thornton as instructor and Albert Senn as his assistant. With about \$12,000 worth of new equipment and a handful of students, the School of Printing set about the task of providing skilled printers for the newspapers and printing shops of South Dakota.¹

In 1924 the school was combined with the journalism department which had begun in 1911. The new Department of Printing and Rural Journalism offered a two-year course in printing, a four-year journalism course and a five-year course consisting of two years of printing and three of journalism.

¹ "SDSU Print Lab is 50 Years Old," Brookings (S. D.) Register, May 20, 1966, p. 8.

The basic aim of the program was to train individuals who would work on the South Dakota weeklies in which the owner was often editor, publisher and printer. However, the computer and electronics revolutionized the printing industry, and there arose a growing demand for persons trained for managerial and technical jobs in larger printing firms as well as for jobs on newspapers and in small printing shops.

To fill this need for trained personnel, the program was divided in 1956 to provide a separate printing management major in addition to the other programs. The new major emphasized management courses to help prepare students for middle- and upper-level management positions in the printing industry. Included in the curriculum were courses in administration, production, labor, sales, personnel and estimating. Practical courses such as lithography, presswork, bindery operations, typography and composing machines (linotype) continued to be a part of the curriculum to provide students with a firm knowledge of printing methods. Also in 1956, South Dakota State University became the first college in the country to offer a Master of Science degree in printing management. This program stressed advanced work in lithography, labor problems and production control.²

At the time of the study the printing majors were part of a larger printing program which included a four-year combination printing and journalism major, a two-year program for those not interested in earning

² In October, 1970, Dr. George H. Phillips, head of the Department of Journalism and Mass Communication, announced that the printing management graduate program would be phased out over a two-year period due to falling enrollment and a shortage of qualified instructors.

a degree and a non-credit training program in printing skills. Laboratory and classroom facilities had been moved to the Rural Printing and Journalism building constructed in 1952 to replace the inadequate facilities of Old North. The Printing Lab produced much of the printed material for the university and provided a background for instruction in management and technical skills needed in the printing industry.

Statement of the Problem

Between 1956 and 1970 a total of 125 students had earned either a Bachelor of Science degree, a Master of Science degree, or both, in printing management at South Dakota State University. One student was deceased, leaving 124 graduates of the printing management programs. The problem consisted of obtaining information concerning the attitudes of graduates toward the printing management program and the adequacy of their college preparation at South Dakota State University. Other information concerning the location, education, employment and income of the graduates was also sought as part of the study.

Objectives of the Study

The study had two major objectives. First, to supply descriptive information about the printing management alumni who graduated from South Dakota State University between 1956 and 1970. This information was divided into four major categories:

1. Demographic
2. Educational
3. Employment
4. Income

The second major objective was to determine the attitudes and opinions of graduates in the printing management programs concerning the adequacy of their printing education in preparation for their work, and their opinions of the printing program in general.

No study had yet been conducted to obtain this kind of information from a majority of the printing management alumni. In order to prepare students to meet the demands of the growing and rapidly changing printing industry, it is necessary that an educational institution be aware of these needs and attempt to upgrade and revise its program accordingly. To do this, the content of that program must be evaluated by those who are in the best position to compare the adequacy of the program with the demands made by the industry on those trained under that program. This study attempted to secure information which could be used to determine industry needs and to assess strengths and weaknesses of the printing program at South Dakota State University.

Limitation of the Study

To be included in the study the alumnus must have earned at least one degree in printing management from South Dakota State University between 1956 and 1970. Included were graduates who earned the Bachelor of Science degree, the Master of Science degree, or both, in printing management. Not included in the study were graduates who earned the combination printing and journalism degree or the two-year certificate in printing. The combination printing and journalism graduates were not included because the curriculum was designed mainly for those interested in the publishing field, although it was similar to the

printing management program in many ways. The holders of the two-year certificate were not included as they had been trained as craftsmen rather than managers.

Definition of Terms

To prevent confusion when discussing various aspects of the data, some potentially troublesome terms must be defined. In this study, a graduate refers to an alumnus of South Dakota State University who earned at least one printing management degree between 1956 and 1970. Because this University contained two distinct sub-populations--graduates who earned only one degree, and those who held two or more degrees--it was necessary to further define each group as it appears in this study.

The graduates who held only the Bachelor of Science degree in printing management from South Dakota State University will be referred to as Group I (BS) graduates. This distinguishes them from Group II (MS) graduates who held two or more degrees, at least one of which was a printing management degree from South Dakota State University. Group II (MS) graduates include:

1. Those graduates who earned both the B.S. and M.S. degrees in printing management at South Dakota State University.
2. Those who earned only the M.S. in printing management from South Dakota State University.
3. Those graduates who earned only the bachelor's degree in printing management from South Dakota State University but also held a master's degree in another field.

Management courses are those which teach management theories and principles in classroom work and lectures. In this study management courses include Plant Administration, Production Control, Labor and

Personnel, Labor Problems, Sales and Promotion, Trends in Graphic Reproduction and Research Methods in Communication.

Skills courses are those which teach manual skills required in practical aspects of printing and basic journalism. These are Composing Machines, Typography, Newspaper Shop Practices, Lithography, Press and Bindery Problems, Newswriting and Reporting and Photography.

A brief description of the courses can be found in Appendix A.

Review of Literature

The author was unsuccessful in locating any literature which pertained directly to the status and opinions of South Dakota State University graduates with degrees in printing management. Informal studies had been conducted among undergraduates at various times to determine their opinions of certain courses in the printing program; no records of these studies were found.

Similar types of studies have been conducted among guidance and counseling graduates³ and industrial arts education graduates⁴ who earned degrees from South Dakota State University. Cecil surveyed a sample of all alumni of the university.⁵

3 Terry Grant Nelson, "A Follow-up Study of Guidance and Counseling Graduates from South Dakota State University from 1957 to 1966," Unpublished M.S. thesis, South Dakota State University, 1967.

4 Robert Vernon Lee, "A Follow-up Study of South Dakota State University Graduates with a degree in Industrial Arts 1959 to 1966," Unpublished M.S. thesis, South Dakota State University, 1967.

5 Charles F. Cecil, "A Survey of Alumni of South Dakota State University," Unpublished M.S. thesis, South Dakota State University, 1970.

These studies served as useful tools in planning and developing this study, but they provided little information concerning the status and opinions of printing management graduates.

Only one study was found which related directly to the status and opinions of the graduates of a printing program at another college. This was a study by Posey conducted among the graduates of the Southwest School of Printing at Sam Houston State College, Huntsville, Texas.⁶

Posey studied 39 of 42 students who earned a bachelor's degree in printing management from that school between 1961 and 1966. The purposes of the study were to ascertain the success and opportunities of a holder of a bachelor's degree in printing management and to obtain views and opinions of graduates concerning the program at Sam Houston State College.

Before 1962 the Southwest School of Printing was located in Dallas, Texas, and was primarily a two-year vocational-technical school for training people as craftsmen for the industry. In 1962 the school was moved to Huntsville where the program was changed to a four-year management-oriented program to offer students a more scientific approach to printing production. Courses in floorwork, offset and letterpress printing, and machine composition remained as requirements of the program. In this respect the printing program seemed comparable to that at South Dakota State University.

6 Bobby A. Posey, "The Success and Opportunities of Printing Management Graduates of Sam Houston State College from 1961 to 1966," Unpublished M.S. thesis, Sam Houston State College, 1967.

Posey found that 28 graduates (71.8 per cent) were working in the printing industry. Ten had entered the teaching profession in high school or college printing programs, three owned their own printing businesses and fifteen had management jobs in commercial printing plants. Only three (7.7 per cent) of the graduates were not in printing. The remaining eight graduates (20.5 per cent) were in military service.

Average annual salary for graduates who were in the printing field was \$6,513 compared to an average of \$8,000 for those who were in other fields.

Thirty-one (79.5 per cent) of the respondents reported that all courses taken in the major field of study were of benefit to them in their jobs. Eight indicated they had taken courses which were of little or no benefit to them.

General areas cited as being weak in course content were the laboratory courses taught in letterpress, offset and machine composition (linotype). All respondents who cited general areas as being weak were not at the time employed in positions which required knowledge of that particular area.

From his findings Posey recommended four changes in the printing management curriculum at Sam Houston State College: (1) reduce laboratory time and increase classroom time; (2) add electronic type-setting courses; (3) add more required courses in offset lithography; and (4) require two semesters in estimating instead of only one.

Other pertinent literature included a 1964 study done by Ball State University, Muncie, Indiana, in which 121 Indiana printing and

folding-carton firms were surveyed to determine precise management skills needed by the college graduate who hoped to achieve supervisor or manager status in some aspect of the printing industry.⁷ Management skills found to be most important were:

1. Ability to develop accurate cost information.
2. Knowledge of effective sales procedure.
3. Ability to communicate clearly.
4. Ability to delegate authority and responsibility.
5. Ability to coordinate activities of groups of people.
6. Ability to promote long-range planning.
7. Attitude of the generalist, rather than the specialist, to enable evaluation of the effectiveness of management to achieve specific and stated goals.
8. Ability to encourage labor-saving innovations.
9. Knowledge of job scheduling, routing, record keeping, inventory control and training in the operation of control boards and devices.

The ability to estimate jobs accurately and determine true cost and true profit was considered of vital importance by Indiana printing firms as each job was tailored to the needs of an individual customer.

Literature pertaining to the attitudes of graduates toward college printing programs and the status of printing education was also limited.

Printing Production, a trade magazine for printing management personnel, did two studies concerning the adequacy and quality of printing education. A 1969 study surveyed graduates of a number of

7 Claude Reith, "Gearing Graphic Arts Programs to the Requirements of Industry," School Shop, XXVII (March 1968), 38-39.

college printing programs from all over the country to determine how adequately they thought their college educations had prepared them to assume responsibility as industry's managers.⁸ A study done in 1968 surveyed those responsible for preparing these managers--printing educators.⁹ Printing Production's study of printing graduates included an undisclosed number who had worked in the industry from four to eight years. The researchers felt that these graduates had sufficient time to become deeply involved in the demanding requirements of their jobs but had not yet forgotten the strengths and weaknesses of their education programs.

The proportion of theory as opposed to practical instruction in printing education was one area examined in the study. Half of the graduates said there was a close balance between the practical training and theory in their curricula. More than one-third (37.5 per cent) indicated that their education had provided them with more practical and specific application than theory. Only 12.5 per cent said that emphasis in their instruction had been general and theoretic.

The graduates were also asked what would have been more useful in their curricula--more practical training or more theory orientation; nearly half (49 per cent) indicated that a 50-50 combination of theory and practical experience was the best in printing education. One graduate said, "Teach the theory and practical methods of systems used

8 "The Graduate's Edge," Printing Production, C (January 1970), 54-57.

9 "Changing Profile in Education," Printing Production, XCVIII (June 1968), 116-119.

today and those which will be used in the future and not the methods and theories of the past." Thirty-one per cent preferred a more theoretic orientation. "More use should be made of the basic concepts as they relate to graphic arts such as planning, communication and standardization," commented one respondent. Only 20 per cent indicated that more practical training would have served them better in the positions they held.

The study also asked the graduates to assess the value of their college preparation as compared with early on-the-job experiences following graduation. According to 59 per cent of the respondents, the printing education they received was highly valuable in relation to early job experiences. Another 39 per cent indicated their education was of moderate value, while only two per cent regarded their education as having little value in their early on-the-job experiences.

Marketing, computers for composition, management techniques, employee relations, web offset, finishing and bindery operations, finance and electronic composition were areas which graduates indicated should be included in future printing programs. Areas which graduates thought should be stressed included management, sales and finance, foreseeable changes, photolithography, accounting, production control and sciences.

The 1968 study polled nearly 400 members of the International Graphic Arts Education Association to determine their opinions of printing education in the '70s. These instructors were affiliated with vocational schools, high schools, and junior and regular colleges. They indicated four general areas in which major changes are needed:

1. Revision of both high school and college printing education programs

2. Introduction of broader programs in science and electronics
3. Improvement in the caliber of instructors and students
4. Greater support by the industry itself

More than 81 per cent of the respondents were critical of printing education for not doing an adequate job of providing the best trained people for the new, emerging technology. Only 19 per cent indicated that printing education was doing an acceptable job of meeting the needs of the industry.

The fact that many institutions were not attracting the best students to training programs in existence was cited by many of the instructors as a primary deficiency affecting the value of college level printing programs. "We are not attracting enough young people who have the qualifications and ability for the industry," commented an instructor. Another said, "All too often we must work with the IQ that applies. We need to strengthen our admission policies." Some of the 19 per cent who indicated that education was doing an acceptable job of training had to qualify their statements. "A good job is being accomplished with the ingredients provided; however, improvements would be possible with better students, teachers and equipment," said one.

The status of printing education at the college level also received much criticism from the educators. They indicated that only a fair-to-good job was being done in colleges having four-year printing programs. About 41 per cent of the respondents rated the job as being good, while 46 per cent said that only a fair job was being done.

When asked what they thought was the greatest need in printing education, 31 per cent of the educators said the greatest need was for

more qualified instructors. Twenty per cent listed the need to completely revamp present printing programs. Another 17 per cent considered more modern equipment for teaching purposes to be the most vital need, while 16 per cent mentioned the need for more industry support in the form of money, hardware and promotion as the greatest need. Six per cent listed such things as more general industry support and cooperation and better students as things most needed to make printing education programs better and more effective.

Summary

The study by Posey of graduates of the Southwest School of Printing at Sam Houston State College suggested the need for more classroom instruction on management-oriented coursework and less time in the laboratory for skills-related instruction. The initiation of electronic typesetting courses and more required courses in lithography and estimating were recommended by Posey as means of keeping pace with the changing technology of the printing industry.

A study of 121 Indiana printing and folding-carton firms by Ball State University recommended that graduates attempt to develop certain management competencies if they desired positions at the managerial level of the printing industry. These included the ability to communicate effectively, delegate authority and responsibility, direct the activities of groups of people and develop labor-saving innovations. Ability to develop accurate cost and profit information was considered to be a vital skill in printing management.

Printing college graduates working in the field believed their printing educations were moderately to extremely valuable to them in their early job experiences. Areas which they indicated should be of most importance in future printing education programs included management, finance and sales, foreseeable changes, photolithography, accounting, production control and social sciences.

Many printing educators were critical of their own efforts in supplying students with needed skills to become effective managers in the printing industry. Forty-one per cent said that a good job was being done by educational institutions to meet the needs of the industry whereas 46 per cent said only a fair job was being done. More qualified instructors was listed as the greatest need in printing education. Some called for a complete revamping of existing programs, while others said many problems could be solved with more modern equipment for educational purposes, more support from the printing industry and improved teaching aids.

CHAPTER II

METHODOLOGY

Because the study involved a large number of subjects dispersed over a wide area, the mail questionnaire was selected as the most feasible means of gathering the information needed to fulfill the objectives of the study.

The 1970 Printing and Journalism Alumni Directory provided the names and addresses of most of the graduates to be surveyed in the study. Additional inquiries in the form of letters and telephone calls were made to relatives and employers in order to obtain up-to-date information on a number of graduates whose listed addresses were known to be out-of-date. The alumni office offered additional assistance in locating graduate addresses.

The questionnaire was developed according to Freed's ten principles for constructing an effective questionnaire:¹⁰

1. Be specific when formulating the objectives of the study.
2. The questions should be expressive of the objectives of the study.
3. The questions should foster a logical and systematic progression toward fulfillment of the objectives.
4. Do not include questions in the questionnaire whose answers will not be used.

¹⁰ Melvin N. Freed, "In Quest of Better Questionnaires," Personnel and Guidance Journal, XLIII (October 1964), 187-188.

5. Each question should be clearly stated.
6. Define controversial terms.
7. Do not include questions which are too restrictive or too general.
8. Observe parallelism and exclusiveness in multiple choice questions. Whenever the respondent is requested to select the appropriate response among alternatives, it is essential that the choices be exclusive.
9. Be decisive when constructing the questions. Do not include modifiers that qualify questions and render them useless.
10. The level of vocabulary should be at the anticipated level of the respondent.

A preliminary questionnaire was constructed using these principles as a guide. Ten individuals who had graduated with a combination printing and journalism degree were selected as a pre-test population. This was considered an ideal pre-test population because the printing and journalism curriculum paralleled the printing management curriculum in a number of ways. Students of both programs were exposed to many of the same instructors and were required to take many of the same courses. Most of the printing and journalism graduates held jobs in the printing industry.

A letter explaining the reason for the pre-test (Appendix B), the pre-test questionnaire and a business reply envelope were mailed to each of the ten graduates. After two weeks, seven had returned the completed questionnaire with comments and suggestions, two graduates did not reply and one questionnaire was returned as undeliverable.

The comments and criticisms of the seven who returned the questionnaire pointed out problem areas. A number of additions, deletions

and other changes were made before the revised questionnaire was mailed to the 124 graduates in the study. It was decided that the changes were not extensive enough to require a second pre-test.

A second letter explaining the objectives of the study (Appendix C), the revised questionnaire (Appendix D) and a business reply envelope were mailed to each of the graduates on December 1, 1970. Each letter was individually addressed.

On December 28, 1970, a follow-up letter (Appendix E), another questionnaire and business reply envelope were sent to the graduates who failed to respond to the first mailing. On January 11, 1971, six weeks after the first mailing, a cut-off date was established; no questionnaires thereafter returned were used in the study. This seemed to be sufficient time as 98 completed questionnaires had been returned during the allotted time.

As the questionnaires were returned, the data were compiled and coded according to the method used by Oppenheim.¹¹ The coded material was then punched into electronic data processing cards. The university card sorting and computer facilities were used to tabulate data into frequency distributions. This information was divided into two parts in keeping with the objectives of the study. The first part relates the descriptive information concerning the graduate's status. The second part presents the attitudes and the opinions of the graduates concerning the adequacy of their college education.

¹¹ A. N. Oppenheim, Questionnaire Design and Attitude Measurement (New York: Basic Books, Inc., 1966), pp. 238-254.

CHAPTER III

FINDINGS

Part 1

A total of 98 usable questionnaires were returned by the graduates. This represented a 79 per cent response rate for the printing management alumni of South Dakota State University. Of these, 62 (63.3 per cent) were Group I (BS) graduates and 36 (36.7 per cent) were Group II (MS) graduates. The high response rate was attributed to two factors. First, the group surveyed was an interested group rather than a random sample of a more general population. Second, every attempt was made to secure the correct addresses of all graduates. This attempt appeared to be successful as only one questionnaire was undeliverable.

Demographic Information

Enrollment status

Sixty-five (66.3 per cent) of the 98 respondents who earned at least one printing management degree from South Dakota State University indicated that they had enrolled as non-resident (out-of-state) students. This was a relatively high percentage of non-residents at a university where total non-resident enrollment was usually low. About a third (33.7 per cent) of the graduates had enrolled as residents of South Dakota.

Thirty-two (88.9 per cent) of the non-resident students held two or more degrees. All but two of these earned the master's degree in

printing management at South Dakota State University. The remaining two non-residents earned the bachelor's degree in printing management at South Dakota State University but had earned the master's degree in other fields. Only four (11.1 per cent) of the Group II (MS) graduates were residents of South Dakota. Two of these held the master's degree in printing management, and two earned the bachelor's degree in printing and master's degree in other fields.

Table 1 shows the enrollment status of Group I (BS) and Group II (MS) graduates.

TABLE 1

RESPONDENTS' ENROLLMENT STATUS AS STUDENTS AT SDSU

Enrollment status	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Resident	29	46.7	4	11.1	33	33.7
Non-resident	33	53.3	32	88.9	65	66.3
Total	62	100.0	36	100.0	98	100.0

Location of respondents

Graduates of the printing management programs lived in 29 states and five foreign countries. Thirteen (13.3 per cent) resided in Minnesota, twelve (12.2 per cent) lived in South Dakota, and seven (7.1 per cent) resided in Illinois. These three states accounted for about one-third of the residences of responding graduates.

Five graduates lived in California, and four lived in each of the states of New Jersey and Ohio. Three resided in each of the states of West Virginia, Missouri, Virginia, Iowa, Washington, New York, Pennsylvania and Kentucky. Two lived in each of the states of Oregon, Connecticut, North Dakota, Nebraska, Colorado and Indiana. One graduate lived in each of the states of Arkansas, Louisiana, Wisconsin, Texas, North Carolina, Delaware, Kansas, Massachusetts and Michigan.

Seven graduates were on military tours of duty in foreign countries. Four were in Germany, two were in Vietnam and one was in Korea. One graduate was a permanent resident of Australia, although he had been an American citizen at the time he was enrolled at South Dakota State University.

Sizes of communities in which graduates worked

Graduates worked in cities of various sizes. The largest percentage of graduates who responded to the question (36.1 per cent) worked in cities of over a half million population. About one-fourth (25.7 per cent) held jobs in communities of 25,000 people or less. Nineteen (19.6 per cent) had jobs in cities between 100,000 and 499,999 people, and 18 (18.6 per cent) worked in cities between 25,000 and 99,999 in population. There was little variation in the percentages of Group I (BS) and Group II (MS) graduates who worked in the cities of the different sizes.

Table 2 shows the number and percentages of graduates who worked in the cities of various sizes.

TABLE 2
SIZES OF COMMUNITIES IN WHICH GRADUATES HELD JOBS

City size	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Under 25,000 people	14	23.0	11	30.0	25	25.7
25,000 to 99,999	11	18.0	7	19.7	18	18.6
100,000 to 499,999	13	21.3	6	17.0	19	19.6
More than 500,000	23	37.7	12	33.3	35	36.1
Total	61	100.0	36	100.0	97	100.0

Number of visits to South Dakota State
University since graduation

Table 3 shows the number of times graduates visited South Dakota State University since they received their degrees from the university. Group I (BS) graduates tended to return much more often than Group II (MS) graduates. Fifty-six (91.7 per cent) of the graduates who held only the bachelor's degree had returned to the campus at least once compared to only 17 (47.3 per cent) of the Group II (MS) graduates.

TABLE 3

NUMBER OF TIMES GRADUATES VISITED SDSU AFTER GRADUATION

Number of visits	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
None	6	9.8	19	52.7	25	25.6
One to four	40	64.4	14	38.9	54	55.2
Five to nine	9	14.5	1	2.8	10	10.1
Ten or more	7	11.3	2	5.6	9	9.1
Total	62	100.0	36	100.0	98	100.0

Educational InformationDegrees held; undergraduate colleges and majors

All 62 of the Group I (BS) graduates held the bachelor's degree in printing management from South Dakota State University as their only degree. Group II (MS) graduates consisted of 36 respondents who held combinations of degrees from South Dakota State University and other colleges. All but four of the Group II (MS) graduates earned the Master of Science degree from South Dakota State University. Two of these had also earned doctoral degrees in communications from other colleges. The remaining four were graduates of the undergraduate printing program who had earned master's degrees in such fields as education and administration.

Twenty-seven (75 per cent) of the undergraduate majors of Group II (MS) graduates were in some area of printing. These included printing management, engineering, technology and education. Other undergraduate majors and their numbers (in parentheses) were: business administration (3), industrial arts (3), education (2) and mathematics (1). Four colleges conferred 22 (61 per cent) of the undergraduate degrees to Group II (MS) graduates, all of which were in printing. These colleges and the number of printing degrees granted by each were: South Dakota State University (7), Rochester Institute of Technology (6), California State Polytechnic College (5) and West Virginia Institute of Technology (4). Other colleges granting undergraduate printing degrees were Arkansas State University (2), Southern University (1), Carnegie Institute of Technology (1) and Southern Illinois University (1).

Year graduated from South Dakota State University

The fifteen-year period between 1956 and 1970 was divided into three five-year periods--1966-1970, 1961-1965 and 1956-1960. Graduates who held both printing degrees from South Dakota State University were listed according to the year in which they earned the master's degree. Group II (MS) graduates who earned only the bachelor's degree in printing management from South Dakota State University but held master's degrees in other fields were listed according to the year in which the undergraduate printing degree was awarded.

Table 4 shows the breakdown of graduates according to the years in which they received their printing management degrees. Almost half (47 per cent) of the 98 graduates earned their printing degrees after

1965. Forty (40.7 per cent) received their degrees between 1961 and 1966. Only 12 (12.2 per cent) of the graduates received printing management degrees during the first five years of the program between 1956 and 1960. All of these degrees were at the undergraduate level as the first master's degrees were not awarded until after 1961, although the program had been in existence since 1956.

TABLE 4

YEARS IN WHICH GRADUATES EARNED PRINTING MANAGEMENT
DEGREES AT SOUTH DAKOTA STATE UNIVERSITY

Year of graduation	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
1966-1970	32	51.6	14	38.9	46	47.0
1961-1965	18	29.0	22	61.1	40	40.7
1956-1960	12	19.4	-	--	12	12.2
Total	62	100.0	36	100.0	98	100.0

Advanced degrees pursued by graduates

Ten (10.1 per cent) of the 98 graduates were working for degrees beyond those they already held. Five held the bachelor's degree and were working toward the master's degree. Four were completing work on the master's degree in printing management. Three of these were full-time students at South Dakota State University and the fourth was teaching in addition to working on his degree. The fifth was pursuing a master's degree in computer systems at another university.

The five who held the master's degree in printing management were also working toward degrees above that level. Three were working for the Doctor of Philosophy degree in education/administration, and another was working for a Ph.D. in management. A law degree was the goal of the fifth. All were studying at other universities.

Graduates who were not working for a graduate degree were asked whether they intended to do so in the future. Of the 82 who responded to the question, 11 (13.3 per cent) said they intended to continue their education, 27 (33 per cent) said they would not and 44 (53.7 per cent) were undecided.

A majority of Group II (MS) graduates, 19 (76 per cent), were undecided about continuing their education while only 25 (45.6 per cent) of the Group I (BS) graduates were in the undecided category. Table 5 categorizes graduates according to their intentions to work for advanced degrees.

TABLE 5
GRADUATES' INTENTIONS TO WORK FOR ADVANCED DEGREES

Intention to work for advanced degree	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Yes, will work for advanced degree	8	14.7	3	12.0	11	13.3
No, will not work for advanced degree	24	42.3	3	12.0	27	33.0
Undecided	25	44.0	19	76.0	44	53.7
Total	57	100.0	25	100.0	82	100.0

Opinion toward repeating college years

Graduates were asked to indicate one of four choices if they could repeat their college years. The alternatives were: attending South Dakota State University in the same field (printing); attending South Dakota State University in a different field; attending a different college in printing and attending a different school in a different field.

Of the 96 who responded to the question, 70 (73 per cent) indicated they would enroll in the printing management program at South Dakota State University again. Eleven (11.4 per cent) said they would enroll in printing, but at other colleges. A total of 15 (15.6 per cent) would choose different fields of study, either at South Dakota State University or at other colleges.

Table 6 shows that a majority of both Group I (BS) and Group II (MS) graduates would enroll again in printing at South Dakota State University. Only four (6.6 per cent) of the Group I (BS) graduates would take printing at other colleges compared to seven (20 per cent) of the Group II (MS) graduates.

Twelve (19.6 per cent) of the graduates who held only the bachelor's degree indicated they would choose a different field of study if they could do their college years over again compared to only three (8.6 per cent) of those who held two or more degrees.

TABLE 6
GRADUATES' CHOICE OF ACTION IF GIVEN THE
OPPORTUNITY TO REPEAT COLLEGE YEARS

Alternatives	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Attend SDSU in the same field (printing)	45	73.8	25	71.4	70	73.0
Attend SDSU in a different field	5	8.2	2	5.7	7	7.3
Attend a different school in the same field	4	6.6	7	20.0	11	11.4
Attend a different school in a different field	7	11.4	1	2.9	8	8.3
Total	61	100.0	35	100.0	96	100.0

Employment Information

Field of employment

The responses concerning graduates' fields of employment were divided into nine major job categories. Seven of these were related to the printing field, one was for graduates in the military and one was for non-printing jobs. A brief description of the seven printing categories is helpful in understanding the differences and duties involved in each.

Commercial printing included graduates involved in the production or sale of printed materials on a job basis as well as those in

magazine and book publishing. Also included in the commercial printing category were graduates in packaging and container manufacturing.

Graduates who were teachers and/or administrators in college or high school printing, graphic arts or visual communications programs were included in the teaching category.

Included in the newspaper category were graduates who held production and/or editorial jobs on weekly or daily newspapers.

Printing equipment and paper manufacturing and/or sales included graduates who worked for manufacturers and suppliers of printing equipment, paper and other supplies for newspapers and printing firms.

Graduates who worked for the federal government were placed in the civil service category. A separate category was also established for students in graduate school who had not yet taken full-time jobs.

A miscellaneous printing category was established for graduates who worked in specialized printing fields which could not be easily categorized in one of the other six groups. Table 7 shows the number and percentage of graduates who worked in each of the nine fields.

Three-fourths (75.5 per cent) of all graduates of the printing program at South Dakota State University were working in fields directly related to printing. Thirteen (13.3 per cent) were in the military, and only 11 (11.2 per cent) indicated they were working in fields other than printing.

Commercial printing and teaching accounted for the jobs of nearly half of the graduates--28 (28.5 per cent) and 18 (18.4 per cent) in each field. Ten (10.1 per cent) were in newspaper work, six (6.1 per

cent were in printing equipment and paper, three (3.1 per cent) were in civil service and three were in graduate school.

TABLE 7
NUMBER AND PER CENT OF GRADUATES IN
NINE FIELDS OF EMPLOYMENT

Field of employment	Number	Per cent
Commercial printing	28	28.5
Teaching	18	18.4
Military service	13	13.3
Newspaper	10	10.2
Printing equipment, paper	6	6.1
Miscellaneous printing	6	6.1
Civil service	3	3.1
Graduate school	3	3.1
Non-printing	11	11.2
Total	98	100.0

The six respondents who indicated they were in miscellaneous printing fields listed jobs as: technical services representative; manager, purchasing and in-plant printing; director of development, graphic arts education materials; commercial officer, printing employer's association; salesman, lithographic trade shop and typesetter, type-setting trade shop.

The eleven graduates who were not working in the printing field were employed in (number in parentheses): advertising (3), direct sales (1), real estate sales (1), commercial flying (1), administration of non-printing educational facilities (2) and service station management (1). Two respondents in non-printing fields did not indicate their kind of work.

Graduates in commercial printing listed a wide variety of job titles which were grouped into several major areas. These areas and the number of graduates in each were: sales (6), estimating (5), general plant management (3), production control (3), quality control (1) and scheduling (1). Nine of the graduates in commercial printing and packaging did not list a job title or area of work.

Of the eighteen graduates in printing education, two were professors, one was an associate professor, six were assistant professors and seven were instructors in printing. One listed his job as a combination of teaching and supervising printing production at the college for which he worked. Seventeen of the teaching graduates were in colleges and one was teaching at the high school level.

All the graduates in the military were officers--twelve in the Army and one in the Air Force. Their ranks and the number holding each rank were: first lieutenant, nine; captain, two and second lieutenant, two. One of the graduates in the Army indicated that he was going to make the military his career. Two of the graduates were connected with military printing operations.

Of the ten graduates who worked for newspapers, four had jobs with dailies (two in production and two in editorial jobs), and six worked for weeklies, some combining both editorial and production duties.

Three graduates in the printing equipment and paper field were in sales. One was in research, one was in production management and one did not list his job. All three graduates working for the federal government held management positions in the publications branch of the Internal Revenue Service. The breakdown of responses according to field of employment and group is shown in Table 8.

TABLE 8

FIELD OF EMPLOYMENT BY NUMBER OF DEGREES HELD

Field of employment	Group I (BS)		Group II (MS)	
	f	%	f	%
Commercial printing	22	34.9	6	16.8
Teaching	1	1.6	17	47.2
Military service	12	19.5	1	2.8
Newspaper	10	16.3	-	-
Printing equipment, paper	4	6.5	2	5.6
Miscellaneous printing	3	4.9	3	8.2
Civil service	-	-	3	8.2
Graduate school	3	4.9	-	-
Non-printing	7	11.4	4	11.2
Total	62	100.0	36	100.0

Of 62 Group I (BS) graduates, the largest number, 22 (34.9 per cent) were in the commercial printing field. Ten (16.3 per cent) worked for newspapers. Four (6.5 per cent) were in printing equipment and paper, and three (4.9 per cent) had miscellaneous printing jobs. Three were in graduate school, and seven (11.4 per cent) were in non-printing jobs. Only one Group I (BS) graduate was teaching. Only one of the thirteen graduates in the military had more than one degree.

Almost half or 17 (47.2 per cent) of the Group II (MS) graduates were in teaching. Six (16.8 per cent) held jobs in commercial printing or packaging. Four graduates who held the master's degree were not in the printing field. Three (8.2 per cent) were in each of the miscellaneous and civil service areas. Two were in equipment and paper, and one was in the military.

Self-employment among graduates

Seven (7.2 per cent) of the respondents indicated they either owned or were in the process of buying their own businesses. Four owned commercial printing establishments, two owned newspapers, and one was self-employed in a non-printing business. All seven held the bachelor's degree in printing management.

Two other graduates, both with master's degrees, owned part-time businesses which they operated in addition to their other full-time jobs. One owned a commercial printing business, and the other operated a non-printing business about half of each year.

Graduates in South Dakota

Only 12 (12.2 per cent) of the graduates of the printing program lived in South Dakota. All were Group I (BS) graduates. Two worked in commercial printing, six owned or worked for newspapers and three were in graduate school at South Dakota State University. One respondent indicated he was in the military.

Graduates' intentions to remain in field

Graduates were asked to indicate whether they would remain in their field of employment until retirement. Sixty-eight (70.7 per cent) of the 96 who responded to the question indicated they would probably remain in their field until retirement. Twenty (20.8 per cent) said it was either unlikely, or that they would not stay in the field in which they worked, and eight (8.5 per cent) were undecided.

Of the 20 who answered negatively, nine were in the military, three worked in commercial printing, one worked for a newspaper, one was working for the government, one was in printing equipment and paper and two were teaching. Three graduates working in non-printing fields said it was unlikely they would stay in the field in which they were employed. Table 9 shows the graduates' intentions to remain in their fields of employment until retirement.

TABLE 9
GRADUATES' INTENTIONS TO STAY IN FIELD
UNTIL RETIREMENT

Intention	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Will stay in field	7	11.7	9	25.0	16	16.7
Will probably stay	33	55.0	19	52.7	52	54.0
Unlikely	5	8.3	2	5.6	7	7.3
Will not stay	11	18.3	2	5.6	13	13.5
Undecided	4	6.7	4	11.1	8	8.5
Total	60	100.0	36	100.0	96	100.0

Income

Income averaging method

Because responses to the question concerning graduates' gross annual income were in six income ranges rather than in exact figures, an averaging method was needed to determine approximate average incomes.

Values of \$6,000 and \$20,000 were assigned to the \$7,000 or less income category and \$18,000 or more category, respectively. For the remaining four salary ranges, the midpoint was chosen as the average income for each range. Average annual incomes were rounded to the nearest one-hundred dollars in all cases.

Income of all graduates

Table 10 shows income information for all 94 graduates who responded to the question concerning income. The largest number of graduates, 37 (39.4 per cent), indicated they received salaries in the \$9,000-\$11,999 bracket. The next largest group or 21 graduates (22.3 per cent) earned between \$12,000 and \$14,999 annually. Twenty (21.2 per cent) earned less than \$9,000 annually, and 16 (17 per cent) earned incomes of \$15,000 or more. Average income for all graduates was \$11,700.

The income distribution for Group I (BS) and Group II (MS) graduates is shown in Table 11. About one-third of all Group I (BS) graduates (33.8 per cent) received less than \$9,000 annually. Twenty-five (42.4 per cent) earned between \$9,000 and \$11,999. Eight (13.6 per cent) received between \$12,000 and \$14,999, and only six (10.2 per cent) earned more than \$15,000 annually.

None of the Group II (MS) graduates earned less than \$9,000. Twelve (34.3 per cent) received between \$9,000 and \$11,999. The largest number of Group II (MS) graduates or 13 (37.1 per cent) indicated their salaries to be in the \$12,000 to \$14,999 income range. Ten (29.6 per cent) earned more than \$15,000 each year.

Average income for graduates who held only one degree was \$10,500 compared to an average income of \$13,600 for graduates who held two or more degrees, or a percentage difference of about 30 per cent.

TABLE 10

INCOMES OF GRADUATES ACCORDING TO SALARY RANGE

Salary range	Number	Per cent
Less than \$7,000	11	11.7
\$7,000 to \$8,999	9	9.5
\$9,000 to \$11,999	37	39.4
\$12,000 to \$14,999	21	22.4
\$15,000 to \$17,999	9	9.6
\$18,000 or more	7	7.4
Total	94	100.0

TABLE 11

INCOMES OF GRADUATES ACCORDING TO NUMBER OF DEGREES HELD

Salary range	Group I (BS)		Group II (MS)	
	f	%	f	%
Less than \$7,000	11	18.6	-	-
\$7,000 to \$8,999	9	15.2	-	-
\$9,000 to \$11,999	25	42.4	12	34.3
\$12,000 to \$14,999	8	13.6	13	37.1
\$15,000 to \$17,999	2	3.4	7	20.0
\$18,000 or more	4	6.8	3	8.6
Total	59	100.0	35	100.0

Income by year of graduation

Table 12 shows income information according to the years in which the graduates earned their printing management degrees from South Dakota State University.

Graduates who earned their degrees during the 1961-1965 period received the highest average income of the three five-year periods--\$13,200. This compared to an average of \$13,100 earned by graduates of the 1956-1960 period. The closeness of the salaries considering the difference in graduation dates was attributed to the fact that none of the graduates of the first five years of the printing program earned the master's degree. More than half of the graduates of the 1961-1965 period held the master's degree (See Table 4) which raised the average salary for that period.

Lowest annual income of the three five-year periods was earned by those who graduated during the 1966-1970 period--\$10,200.

About a third (33.1 per cent) of the graduates who earned degrees between 1966 and 1970 earned less than \$9,000 annually. Twenty (42.4 per cent) received between \$9,000 and \$11,999, and ten (23.5 per cent) earned \$12,000 or more each year.

Only four (7.1 per cent) of the graduates who earned degrees between 1961 and 1965 earned less than \$9,000 annually. An annual income of between \$9,000 and \$14,999 was reported by 21 (37.8 per cent) of the 1961-1965 five-year period. Eleven (19.5 per cent) earned more than \$15,000 annually.

All graduates who earned degrees before 1961 reported their incomes. Half of them earned between \$9,000 and \$11,999. Four

(33.3 per cent) earned between \$12,000 and \$14,999, and two (17.7 per cent) earned more than \$18,000 annually.

TABLE 12
GRADUATES' INCOMES ACCORDING TO YEAR IN WHICH
PRINTING MANAGEMENT DEGREE WAS EARNED

Salary range	1966 to 1970		1961 to 1965		1956 to 1960	
	f	%	f	%	f	%
Less than \$7,000	11	22.9	-	-	-	-
\$7,000 to \$8,999	5	10.2	4	7.1	-	-
\$9,000 to \$11,999	20	42.4	11	19.8	6	50.0
\$12,000 to \$14,999	7	15.1	10	17.8	4	33.3
\$15,000 to \$17,999	1	2.8	8	14.2	-	-
\$18,000 or more	2	5.6	3	5.3	2	16.7
Total	46	100.0	36	100.0	12	100.0

Income by field of employment; average
income by field

Table 13 shows incomes for graduates according to the nine fields of employment, and Table 14 places each field of employment in order from highest to lowest according to average salary paid by each.

Highest paid graduates were those who were in non-printing fields with an average income of \$14,800. This was well above the \$13,700 paid to the graduates who were in miscellaneous printing jobs, and who

TABLE 13
INCOME BY FIELD OF EMPLOYMENT

Field of employment	Less than \$7,000		\$7,000 to \$8,999		\$9,000 to \$11,999		\$12,000 to \$14,999		\$15,000 to \$17,999		\$18,000 or more	
	f	%	f	%	f	%	f	%	f	%	f	%
Commercial printing	1	3.7	-	--	16	55.2	6	22.3	2	7.4	2	7.4
Teaching	-	--	-	--	8	47.1	7	41.1	1	5.9	1	5.9
Military service	5	41.7	4	33.3	3	25.0	-	--	-	--	-	--
Newspaper	2	20.0	3	30.0	3	30.0	2	20.0	-	--	-	--
Printing equipment paper	-	--	1	16.7	2	33.2	1	16.7	1	16.7	1	16.7
Miscellaneous printing	-	--	-	--	1	20.0	3	60.0	1	20.0	-	--
Civil service	-	--	-	--	1	33.3	1	33.3	1	33.3	-	--
Graduate school	3	100.0	-	--	-	--	-	--	-	--	-	--
Non-printing	-	--	1	9.1	3	27.3	1	9.1	3	27.3	3	27.3
Total	11	11.7	9	9.5	37	38.4	21	22.4	6	6.5	7	7.5

TABLE 14
RANK OF NINE EMPLOYMENT FIELDS ACCORDING TO
AVERAGE SALARIES EARNED IN EACH

Field of employment	Rank	Average income	Number earning	Per cent
Non-printing	1	\$14,800	11	11.7
Miscellaneous printing	2	13,700	5	5.3
Civil service	3	13,500	3	3.3
Printing equipment, paper	4	13,200	6	6.3
Teaching	5	12,700	17	18.1
Commercial printing	6	12,200	27	28.7
Newspaper	7	9,500	10	10.6
Military service	8	7,800	12	12.7
Graduate school	9	Less than 7,000	3	3.3
Total			94	100.0

ranked second highest among graduates in the nine fields. Graduates who worked for the federal government ranked third with an average income of \$13,500. Ranking fourth with an income of \$13,200 were graduates who worked in printing equipment and paper manufacturing. Graduates in the teaching field earned approximately \$12,700, and the income of graduates who worked in commercial printing was \$12,200.

Lowest paid of the graduates in printing jobs were those who worked for newspapers. They earned only \$9,500 annually. Graduates in the military earned \$7,800, and the graduates who were continuing their educations in graduate school earned less than \$7,000 annually.

Part 2Kind of training received; training
believed ideal

Graduates were asked to indicate what kind of training in printing they thought they had received while students at South Dakota State University. The three choices which they were offered were: training which was largely practical and specific; training which was largely general and theoretic or training which was closely balanced between practical experience and theory. In a second question they were asked to indicate which of the three choices they believed to be the ideal in printing education at the college level.

Group I (BS) graduates were almost equally divided among the three choices. Twenty-two (37.1 per cent) thought their training had been largely practical and specific. Twenty (32.8 per cent) indicated their training had been balanced, and 19 (30.1 per cent) thought their training had been largely general and theoretic. This was probably a result of the undergraduate curriculum which offered a relatively large number of both management and skills courses which allowed for some flexibility in curriculum selection by students.

A majority of the Group II (MS) graduates, however, thought that their education had been largely general and theoretic. Nineteen (54.2 per cent) indicated this choice. Eight (22.9 per cent) thought their printing training at South Dakota State University had been balanced, and the remaining eight indicated their training was largely practical and specific. The large percentage of Group II (MS) graduates who indicated training was largely general and theoretic reflected the graduate curriculum which had only one skills course.

One graduate who indicated that his training had been largely general and theoretic commented that in a field which was as diverse as printing, training had to be general. A graduate who said his training had been practical and specific thought he had not received enough theory of management.

In comparison with the opinions of the training received were the opinions of the kind of training which graduates believed would be the ideal in printing management education.

Two-thirds or 66 (66.7 per cent) of the graduates who responded to the question thought ideal printing management education should be balanced between theory and practical experience. Of the remaining one-third, 18 (18.7 per cent), believed training should be more theory oriented, and 14 (14.6 per cent) thought printing education should stress more practical experience. More than three-fourths or 27 (77.1 per cent) of Group II (MS) graduates and 37 (60.7 per cent) of Group I (BS) graduates favored a balanced curriculum over either of the other two choices. Theory-oriented education was second choice in both groups. Third choice of both Group I (BS) and Group II (MS) graduates was a printing management education stressing practical experience.

Tables 15 and 16 show the opinions of graduates concerning the kind of training they received and the training they believed would be ideal in printing management education, respectively.

Aspects of the printing management program most liked

In a series of three open-ended questions graduates were asked to state what they liked most, and liked least about the printing

TABLE 15
GRADUATES' OPINIONS OF THE KIND OF PRINTING MANAGEMENT
TRAINING RECEIVED AT SOUTH DAKOTA STATE UNIVERSITY

Training received	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Largely practical and specific	22	36.1	8	22.9	30	31.2
Largely general and theoretic	19	31.1	19	54.2	38	39.6
Balanced between theory and practical experience	20	32.8	8	22.9	28	29.2
Total	61	100.0	35	100.0	96	100.0

TABLE 16
GRADUATES' OPINIONS OF THE KIND OF PRINTING MANAGEMENT
TRAINING BELIEVED TO BE IDEAL

	Group I (BS)		Group II (MS)		Total	
	f	%	f	%	f	%
Should stress more practical experience	11	18.0	3	8.6	14	14.6
Should be more theory oriented	13	21.3	5	14.8	18	18.7
Should be balanced between theory and practical experience	37	60.7	27	77.1	64	66.7
Total	61	100.0	35	100.0	96	100.0

management program at South Dakota State University. They were also asked to state what they believed was the most needed improvement in printing management education at the college level. In most cases the answers to the third question were directed at printing management education at South Dakota State University because most graduates had not had the opportunity to compare that program with the programs at other institutions.

Table 17 lists the various comments made by graduates concerning the aspects of the printing program they most liked, and the number and percentage who made each statement. In many cases graduates made more than one comment, so percentage figures add up to more than one hundred.

The largest number of graduates, 20 (20.4 per cent) said they most liked the combination of practical laboratory experience and classroom theory in the program. One said he liked this combination because an understanding of both was necessary for a good background in printing. Another said, "Printing theory and processes cannot be fully understood without a limited amount of contact with the actual situation."

Also listed by 20.4 per cent of the graduates were the relaxed, friendly atmosphere, good student-teacher relationships and freedom of discussion in classes. "An individual can do better when he is not pressured by the department" and "instructors were 'more friends' than instructors" were comments made by two respondents to the question. Another said he liked "the good relationships, for the most part, between faculty and students." But, he qualified this statement by adding, "Perfect relationships are not a prerequisite for educational

TABLE 17

ASPECTS OF THE PRINTING MANAGEMENT PROGRAM

LIKED MOST BY GRADUATES

Comment	Number	Per cent
Application of theories in practical laboratory experiences; balanced curriculum	20	20.4
Relaxed atmosphere; freedom of discussion; good student-teacher relationships	20	20.4
Small classes, individual attention	19	19.4
Quality, dedication and vitality of instructors	17	17.3
Solid background in printing processes provided by curriculum	10	10.2
Management theory and courses	8	8.2
Flexibility in curriculum; freedom to follow own interests	5	5.1
All aspects of the printing program	5	5.1
Practical courses offered	3	3.0
Opportunity to work part-time in the printing laboratory	3	3.0
Thesis work at the graduate level	1	1.0
Industrial tours and field trips	1	1.0

gain nor do they indicate such." Former graduate students most often mentioned that they liked the freedom in classes to present and discuss controversial issues and new subjects.

Ranking third among most-liked aspects of the printing program was the individual attention given by instructors as a result of small classes. Student/teaching ratios in printing classes were usually quite low, especially at the upper-level and graduate level, because of small enrollments in the program. One respondent said, "Because of the small number of students enrolled in this field (printing) the instructors were able to devote necessary time to each individual."

The dedication, vitality and quality of instructors ranked fourth with 17 (17.3 per cent) listing this. "A strong and well-trained teaching staff" and "dedication and humane consideration exemplified by the primary instructional staff toward preparing students to excel in the industry" were comments made by two of the graduates. Undergraduate students were most often complimentary of the quality of instructors who taught skills courses because they had trade experience in the printing field. A number of graduates, especially those who had been in the graduate program, qualified their statements by stating that most of the instructors from whom they had instruction have since left South Dakota State University.

Ten (10.1 per cent) indicated they liked the solid background in understanding most printing processes which they received. "What I liked most was the broad coverage of almost all areas of printing in

that something was learned about programs in different departments," was the statement made by one graduate. Another felt it was just "basic good grounding in the printing trade."

Eight (8.1 per cent) liked the management courses and theory included in the curriculum. One said he liked the opportunity to study some new management theories. "Staying abreast of new management techniques is perhaps the most important job of today's managers," he said.

Flexibility in the curriculum which allowed students to follow their own interests was listed by five graduates as being most liked in the program. "As a graduate student I was happy with the relative freedom given me to report and conduct studies," commented one.

Mentioned less often by graduates were the opportunities to work part-time in the printing laboratory for financial and educational reasons, thesis work at the graduate level and the Printonian Club industrial tours. Five graduates said they thought the entire program had merit and was of benefit to them.

Aspects of the printing management program most disliked

Table 18 categorizes the comments made concerning the things about the printing program graduates disliked most as students.

More than a third, 34 (34.7 per cent), of the graduates indicated that the overemphasis on outdated practical skills and the use of obsolete equipment for instructional purposes were the aspects of the printing management program which they disliked most. Most often mentioned as having received too much stress in the program were composing

TABLE 18

ASPECTS OF THE PRINTING MANAGEMENT PROGRAM

DISLIKED MOST BY GRADUATES

Comment	Number	Per cent
Overemphasis on outdated methods and small shop methods, obsolete equipment used for instructional purposes	34	34.7
Lack of depth in business and management courses needed for large businesses	14	14.3
Lack of exposure to new process and changes in the printing industry	14	14.3
Poor quality of instructors	12	12.2
Overemphasis on production in the printing laboratory	11	11.2
Lack of depth in technical courses (offset lithography)	9	9.2
Isolation from major printing facilities	4	4.1
Poor promotion of the program; poor public relations outside the state of South Dakota	3	3.1
Courses required outside the major area	1	1.0
Lack of sales courses	1	1.0
Lack of art, design courses	1	1.0
Lack of counseling for students in the department	1	1.0
Grading system	1	1.0

machines, platen presswork, hand setting type and the Volga shop laboratory. One graduate said, "I disliked the excessive amount of time required in such courses as typography and composing machines. Not many printing management majors intend to be typesetters or linotype operators. A few weeks in each area would be sufficient." Concerning the obsolete equipment, one alumnus who had been a graduate assistant said, "The limited amount and quality of printing equipment imposed a restriction on the practical instruction and operation of printing hardware presently in use in the industry."

Fourteen (14.3 per cent) of the graduates mentioned there was a lack of depth in business and management courses needed in a large business atmosphere. "There was too much emphasis placed on rural newspaper printing and practices. I feel that the printing management courses should deal with the areas one faces on the job," responded one graduate. Another said, "Management programs need to be imaginative, stimulating and forward looking. Industry is changing too fast to allow programs as those now taught at SDSU." A third stated, "very little training for large urban organizations, or for a person wishing to go into business for himself. Too much emphasis on the practical side; not enough on management techniques."

Another 14.3 per cent stated they disliked the lack of exposure to new processes, trends and technology in the program. Computer applications in the printing industry and photocomposition were two areas most frequently cited in this respect. One said, "There was not enough

emphasis, in fact none, given to computers in either management or practical areas." "More emphasis should have been placed on the newer techniques and methods of production instead of newspapers and letterpress," said another.

Instructor quality was the focus of the comments of 12 (12.1 per cent) of the graduates. "Most instructors were out of touch with industrial experience and knowledge," said one graduate. Another thought "a major portion of the curriculum was taught by those unfamiliar with the realities of modern management and techniques of interpersonal relations at all levels of management and production."

The emphasis on production rather than instruction in the printing laboratory was the aspect of the printing program 11 (11.2 per cent) of the graduates disliked most. "After observing the curriculum at South Dakota State University for a full year it seems that education (BS level) falls at the mercy of production. Some balance should be maintained between the two," said one former graduate student. Another said, "In my opinion it is impossible to operate a successful student-oriented school with so much emphasis on production. Production should be de-emphasized and the student, and his needs, emphasized."

Nine (9.2 per cent) of the students disliked the lack of depth in some technical courses, especially lithography. One graduate commented, "Although I was extremely interested in lithography, the instruction was so poor that I gained very little." Another believed that not enough time was spent on offset presswork. "When they (the students) take jobs after leaving SDSU . . . many move into larger offset

plants, sometimes having to help with production problems or upgrading operations. We can't be expected to do this with theory alone," he said.

Other things disliked by graduates were the isolation from major printing facilities and the subsequent lack of face-to-face contact with large scale printing operations, and poor promotion of the printing program and its graduates. A lack of sales and art courses, a lack of counseling for students in the program and the grading system used by some instructors were mentioned less often by graduates.

Most needed improvements in printing management education

Table 19 shows what the graduates thought were the most needed improvements in printing management education. Thirty-one (31.6 per cent) indicated that a stronger emphasis on management techniques was the most needed improvement. Some of the management-related areas which were mentioned by graduates who responded in this way were industrial engineering, operations research, research methods, quality control, labor-management relations, systems analysis and personnel management. One said, "There is a need to improve the scientific approach to graphic arts technology. Improved courses for solving management problems, technical problems and labor problems are needed." The need to gear programs to the needs of large organizations rather than smaller operations was mentioned frequently by the graduates.

Ranking second with 30 (30.6 per cent) responding was the need for much more stress on the new techniques and trends changing the printing industry, particularly in the areas of computers and

TABLE 19

MOST NEEDED IMPROVEMENTS IN SDSU PRINTING EDUCATION
ACCORDING TO PRINTING MANAGEMENT GRADUATES

Improvement needed	Number	Per cent
Stronger emphasis on scientific management techniques needed in both printing and non-printing fields	31	31.6
More stress on new trends in the industry, especially in the offset and computer areas	30	30.6
More cooperation between education and industry to determine present and future needs of both	13	13.3
Upgrading teaching staff	11	11.2
De-emphasizing outmoded skills	9	9.2
Financial support from the industry	7	7.2
More business courses in the curriculum	7	7.2
Outside experts included in lecture courses; more field trips	5	5.1
More recruitment of better students for existing printing programs	4	4.1
Less emphasis on production in the printing laboratory	4	4.1
More basic courses in the curriculum	3	3.1
A more appealing image of the printing industry portrayed to young people	2	2.0
Make printing a part of a larger visual communications program	1	1.0

lithography. "Graphic arts programs in the colleges should become data processing oriented," said one. "In the years to come the computer will become more and more important to the graphic arts industry." Another comment was that more emphasis should be placed on lithography, photocomposition and allied areas. "These areas are the future of printing, not hot type and hours of hand-setting type." Many suggested that the program try to keep up with the current production processes and techniques, and one graduate said there was a need to "prepare students for five years from now when they graduate."

Thirteen (13.2 per cent) of the respondents indicated there was a need for better cooperation and communication between the industry and college printing programs to determine present and future demands. "Find out what the industry needs at various levels, then train people accordingly as they choose their levels," said one graduate. Another mentioned the need for more feedback from the industry to the colleges concerning specific information about work and problems in the industry, and the type of technical and managerial skills needed in the industry. "Work with the industry on a 'needs' basis," suggested one respondent.

Upgrading the teaching staff was also seen as an important improvement needed in printing education. Respondents ranked it fourth in the list of recommended changes. One graduate commented, "Have more professional people teaching. The trouble is that instructors have a full-time job in the printing department and don't have time to expand their knowledge in new training methods." Many indicated that industry-trained instructors, especially in the areas of offset and management, would greatly strengthen printing management education.

Seven (7.1 per cent) of the graduates listed the need for more support from the industry as the most needed improvement. Graduates suggested a number of forms in which this support could come--financial, for program development and scholarships; seminars and educational materials developed by the industry; and more equipment and material loans by printing firms.

Also mentioned by seven respondents was the need for more business courses in the curriculum particularly accounting, economics, business finance and statistics.

Other things suggested by graduates for improving printing education programs included periodic inclusion of outside experts in the printing field in classroom lectures, more recruitment of better students for printing programs, inclusion of more general courses outside the printing major in the curriculum and a better image of the printing industry to make it more appealing to future college students.

Many graduates suggested that improvements or greater emphasis was needed in areas related to the types of jobs they held. These included such areas as sales, packaging, lithography, photocomposition, estimating and production.

Adequacy of courses in preparing graduates for jobs

Graduates were asked to indicate one of three choices--more than adequate, adequate, or less than adequate--in rating the adequacy of fifteen management and skills courses offered in the printing management program (see Appendix A for a description of the courses). The courses chosen were those which had been a part of the curriculum for all, or

nearly all, of the fifteen years the program had been in existence. Both graduate and undergraduate courses were included in the list because both graduate and undergraduate alumni were surveyed and because students were allowed to take courses above or below their respective college levels if they desired. Therefore, some graduate students had taken undergraduate courses to fill part of the requirements of their degrees, and vice versa.

Courses which were required in the undergraduate program were Composing Machines, Plant Administration, Newspaper Shop Practices, Sales and Promotion, Production and Pricing, Lithography (basic), Typography, and Labor and Personnel. Press and Bindery Problems was not required but taken by many of the graduates. Two journalism courses--Photography and Newswriting and Reporting--were also required in the undergraduate curriculum.

The curriculum at the graduate level was quite flexible in that Research Methods in Communication was the only required course. Other courses offered at the graduate level included Trends in Graphic Reproduction, Labor Problems, Production Control and Lithography (advanced). Responses for basic and advanced Lithography were combined because of the similarity between the two courses.

In rating adequacy of courses it was necessary to standardize responses so a rank-order could also be obtained. This was done by assigning the numbers three, two and one, respectively, to the columns labeled "more than adequate," "adequate" and "less than adequate." For each course the assigned value of the adequacy response column was multiplied by the number of responses in that column. The products

of each column were totaled and divided by the number of graduates who had taken the course. The resulting mean was the adequacy index number for the course. The higher the index number the higher the course was rated by graduates in terms of preparing them for the jobs they held.

Table 20 lists the courses in order and also differentiates them according to type--"M" for management courses and "S" for skills courses. Table 21 lists the courses according to the number and percentage of responses in each adequacy column as well as the index value in order from highest to lowest. "N" values indicate the number of students who took each course. These values vary considerably because not all graduates took all courses, and there was some overlapping of courses taken by both graduate and undergraduate students.

With the exception of the three courses at the top of the list and the two at the bottom of the list, the majority of the courses were considered to be adequate in preparing responding graduates for the jobs they held. The three courses at the top--Research Methods in Communication, Composing Machines and Typography--were weighted heavily in the "more than adequate" column. Although the adequacy indices were fairly close together--2.23 to 2.26--all three were separated from the nearest course considered to be adequate--Newspaper Shop Practices (2.12).

At the other extreme were Production Control and Lithography which a majority of respondents rated less than adequate in preparing them for the jobs they held. The adequacy indices of 1.65 and 1.54, respectively, were separated from the rest of the courses by a relatively wide margin. The next closest course was Newswriting and Reporting with

TABLE 20
RANK OF COURSES ACCORDING TO GRADUATES' OPINIONS OF
THEIR VALUE IN PREPARING THEM FOR JOBS

Course	Rank	Adequacy Index	Type ^a
Research Methods in Communication N=34 ^b	1	2.26	M
Composing Machines N=61	2	2.25	S
Typography N=67	3	2.23	S
Newspaper Shop Practices N=42	4	2.12	S
Labor Problems N=49	5	2.08	M
Photography N=55	6	2.04	S
Production and Pricing N=66	7	2.00	M
Labor and Personnel N=60	8	1.93	M
Press and Bindery Problems N=51	9	1.90	S
Plant Administration N=51	10	1.83	M
Sales and Promotion N=53	11	1.79	M
Trends in Graphic Reproduction N=45	12	1.79	M
Newswriting and Reporting N=56	13	1.73	S
Production Control N=48	14	1.65	M
Lithography N=72	15	1.54	S

^aM=Management courses
S=Skills courses

^bN=number of graduates who took the course

TABLE 21
ADEQUACY RESPONSES BY NUMBER, PER CENT AND INDEX VALUE

Course	(3) More than adequate		(2) Adequate		(1) Less than adequate		Adequacy Index
	f	%	f	%	f	%	
Research Methods in Communication N=34 ^a	14	41.2	15	44.1	5	14.7	2.26
Composing Machines N=61	25	40.9	26	42.6	10	16.5	2.25
Typography N=67	21	31.7	39	57.2	7	11.1	2.23
Newspaper Shop Practices N=42	9	21.4	29	69.0	4	9.6	2.12
Labor Problems N=49	11	22.4	31	63.3	7	14.3	2.08
Photography N=55	7	12.6	43	78.3	5	9.1	2.04
Production and Pricing N=66	13	19.7	40	60.6	13	19.7	2.00
Labor and Personnel N=60	13	22.6	30	50.0	17	27.4	1.93
Press and Bindery Problems N=51	6	11.8	33	64.7	12	23.5	1.90
Plant Administration N=61	5	9.8	40	64.0	16	26.2	1.83
Sales and Promotion N=53	7	13.2	28	52.8	18	34.0	1.79
Trends in Graphic Reproduction N=45	5	10.2	27	55.1	17	34.7	1.79
Newswriting and Reporting N=56	9	15.4	40	72.0	7	12.6	1.73
Production Control N=48	7	11.4	14	30.3	27	58.6	1.65
Lithography N=72	5	8.0	32	41.0	41	53.0	1.54

^aN=Number of graduates who took the course

an adequacy index of 1.73. Within the middle adequacy range there was some variation in the indices, but for the most part they were distributed evenly throughout the range.

In regard to the adequacy of individual courses, Research Methods in Communication was ranked number one by those who took it. Three skills courses--Composing Machines, Typography and Newspaper Shop Practices--were ranked two, three and four. Labor Problems, a management course, was ranked fifth in adequacy.

In the middle of the adequacy rating list were (rank number in parentheses): Photography (6), Production and Pricing (7), Labor and Personnel (8) and Press and Bindery Problems (9). Of the six courses rated relatively low in adequacy, four were management courses. These were Plant Administration (10), Sales and Promotion (11), Trends in Graphic Reproduction (12) and Press and Production Control (14). Skills courses which graduates rated low in adequacy were Newswriting and Reporting (13) and Lithography (15).

Concerning the adequacy of the first three skills courses, most graduates who commented thought they were adequate and, in some cases, were overemphasized in relation to their value. One graduate said, "Granted, some knowledge of composing machines is necessary, but not to the extent it was taught to me."

There were numerous comments made concerning the inadequacy of some of the management areas in the curriculum. "I think there should be a greater emphasis on new trends in management with a correlation to new equipment and new methods of production," commented one.

Lithography, ranked lowest in adequacy in preparing graduates for their jobs, also generated a number of comments. One former graduate student said, "I didn't learn anything I didn't know already." Two others said they thought the course was "lacking in substance."

Benefit of courses to graduates' jobs

The second part of the question relating to individual courses asked the graduates to indicate whether or not the courses they had taken were of benefit to them in some aspect of their position or job. The goal here was not to determine the degree of benefit but to show which courses were of most and least benefit to the graduates who had taken them in their training. Table 22 lists the courses according to the percentage of graduates who took the courses who found them of benefit in their work by rank and type.

Some courses which were of benefit to the largest percentage of graduates were also ranked lowest in adequacy in terms of preparing them for the demands of their jobs. Also, some courses showed the highest adequacy indices and were of benefit to the lowest percentage of graduates who took the courses. This inverse relationship was most apparent in Plant Administration (ranked one in benefit, ten in adequacy), Lithography (ranked three in benefit, fifteen in adequacy), and Production Control (ranked five in benefit, fourteen in adequacy). This was true to a lesser extent for Labor and Personnel, which ranked four in benefit and eight in adequacy.

At the other end of the scale were Typography (ranked twelve in benefit, three in adequacy), Newspaper Shop Practices (ranked thirteen

TABLE 22

RANK OF COURSES ACCORDING TO GRADUATES' OPINIONS
OF THEIR BENEFIT TO JOBS HELD

Course	Rank	% of graduates finding course beneficial to their work	Type ^a
Plant Administration N=61 ^b	1	77.1	M
Research Methods N=34	2	76.4	M
Lithography N=72	3	72.2	S
Labor and Personnel N=60	4	70.0	M
Production Control N=48	5	66.0	M
Production and Pricing N=66	6	65.1	M
Photography N=55	7	64.9	S
Press and Bindery Problems N=51	8	64.7	S
Sales and Promotion N=53	9	60.4	M
Trends in Graphic Reproduction N=45	10	60.0	M
Labor Problems N=49	11	57.1	M
Typography N=67	12	53.7	S
Newspaper Shop Practices N=42	13	47.6	S
Newswriting and Reporting N=56	14	42.9	S
Composing Machines N=61	15	42.6	S

^aM=Management courses
S=Skills courses

^bN=Number of graduates who took the course

in benefit, four in adequacy), and Composing Machines (ranked fifteen in benefit, two in adequacy). All were skills courses. The only management course which showed this tendency was Labor Problems, which ranked eleven in benefit and five in adequacy.

There were additional comments made by graduates which amplified this tendency. "Very little training for large urban organizations, or for a person going into business for himself. Too much emphasis on the practical side, not enough on management technique," said one graduate. Another indicated the need for a stronger emphasis on both the management and technical aspects new to printing. A third said, "Too much time was spent in non-essential labs such as composing machines, and such courses as accounting, a knowledge of which is vital to any member of management, were made electives."

Percentages of benefit ranged from 42.5 per cent of the graduates who found Composing Machines of benefit to them in their jobs to 77.1 per cent of the graduates who indicated Plant Administration was of benefit to them. Three skills courses were used by less than half of the graduates--Newspaper Shop Practices (47.6 per cent), Newswriting and Reporting (42.9 per cent) and Composing Machines (42.6 per cent).

Courses which were of benefit to the jobs of the larger percentages of graduates were almost exclusively management courses. These were Plant Administration (77.1 per cent), Research Methods in Communication (76.4 per cent), Labor and Personnel (70 per cent), Production Control (66 per cent) and Production and Pricing (65.1 per cent). The only management course which was of benefit to fewer

than sixty per cent of the graduates who took the course was Labor Problems (57.1 per cent).

Three skills courses also ranked relatively high in benefit. These were Lithography (72.4 per cent), Photography (64.9 per cent) and Press and Bindery Problems (64.7 per cent).

Management courses which ranked relatively low in benefit were Sales and Promotion (60.4 per cent), Trends in Graphic Reproduction (60 per cent) and Labor and Personnel (57.1 per cent).

Typography, a skills course, was of benefit to the jobs of 53.7 per cent of the graduates followed by Newspaper Shop Practices, News-writing and Reporting and Composing Machines at the bottom of the list.

The paradox of courses which were high in benefit but low in adequacy, and vice versa, did not appear in the rest of the courses which graduates were asked to rate. Research Methods in Communication, ranked first in adequacy and second in percentage of graduates who found it of benefit to their work. Three courses--Production and Pricing, Photography and Press and Bindery Problems--ranked six, seven and eight in benefit and seven, six and nine in adequacy, respectively. Two management courses--Trends in Graphic Reproduction and Production and Pricing--ranked relatively low in benefit and adequacy.

In Table 23 the courses are listed according to how they were generally rated by the graduates who took them. A high adequacy number indicates that graduates rated the course adequate in preparing them for the jobs they held. A low adequacy number indicates graduates thought the course less than adequate. A high benefit number indicates that a large percentage of graduates who took the course found some

TABLE 23

COMPARISON OF COURSES WITH REGARD TO ADEQUACY
AND BENEFIT TO GRADUATES' JOBS

Course	Adequacy rating	Benefit rating	Type ^a
Research Methods in Communication N=34 ^b	1	2	M
Plant Administration N=60	10	1	M
Lithography N=72	15	3	S
Labor and Personnel N=60	8	4	M
Production Control N=68	14	5	M
Composing Machines N=61	2	15	S
Typography N=67	3	12	S
Newspaper Shop Practices N=42	4	13	S
Labor Problems N=49	5	11	M
Newswriting and Reporting N=56	13	14	S
Production and Pricing N=66	7	6	M
Photography N=55	6	7	S
Press and Bindery Problems N=51	9	8	S
Sales and Promotion N=53	11	9	M
Trends in Graphic Reproduction N=45	12	10	M

^aM=Management courses

S=Skills courses

^bN=Number of graduates who took the course

aspect of the course of benefit to them in their work, and vice versa for courses rated low in benefit.

According to the respondents, the course which was rated the highest in both adequacy and benefit was Research Methods in Communication. Nearly all respondents who took this course had been in the graduate program.

Courses rated beneficial to many graduates who took them but were considered the weakest in terms of adequacy were Plant Administration, Labor and Personnel, Lithography and Production Control. Courses rated relatively low in benefit to graduates but ranked high in adequacy were Composing Machines, Typography and Newspaper Shop Practices and Labor Problems.

Newswriting and Reporting, a journalism course required in the undergraduate curriculum, was considered to be low both in adequacy and benefit to graduates.

Courses in which adequacy and benefit of courses to graduates were at relatively the same levels were Press and Bindery Problems, Sales and Promotion, Photography, Trends in Graphic Reproduction and Production and Pricing.

Benefit of courses to graduates in printing and non-printing fields

Tables 24 and 25 show the courses in terms of benefit to graduates in the seven printing fields and to graduates who were in nonprinting fields (military and miscellaneous non-printing).

All courses, with the exception of Newswriting and Reporting, were of benefit to the jobs of half or more of the graduates in the

TABLE 24

RANK OF BENEFIT OF COURSES TO GRADUATES IN PRINTING JOBS

Course	Rank	% of graduates finding course beneficial in their work	Type ^a
Plant Administration N=45 ^b	1	85.2	M
Lithography N=56	2	84.0	S
Press and Bindery Problems N=35	3	80.0	S
Research Methods in Communication N=30	4	80.0	M
Labor and Personnel N=47	5	78.7	M
Production Control N=37	6	78.4	M
Photography N=39	7	75.8	S
Production and Pricing N=49	8	73.6	M
Trends in Graphic Reproduction N=34	9	70.6	M
Sales and Promotion N=38	10	68.9	M
Labor Problems N=37	11	67.6	M
Typography N=51	12	62.7	S
Newspaper Shop Practices N=30	13	56.6	S
Composing Machines N=44	14	50.0	S
Newswriting and Reporting N=40	15	37.5	S

^aM=Management courses
^sS=Skills courses

^bN=Number of graduates who took the course

TABLE 25

RANK OF BENEFIT OF COURSES TO GRADUATES IN NON-PRINTING JOBS

Course	Rank	% of graduates finding course beneficial in their work	Type ^a
Newswriting and Reporting N=16 ^b	1	56.6	S
Plant Administration N=15	2	52.4	M
Research Methods in Communica- tion N=4	3	50.0	M
Production and Pricing N=17	4	41.3	M
Sales and Promotion N=15	5	40.0	M
Labor and Personnel N=13	6	38.4	M
Photography N=16	7	36.7	S
Production Control N=11	8	36.4	M
Press and Bindery Problems N=16	9	31.3	S
Lithography N=16	10	31.3	S
Typography N=16	11	31.3	S
Trends in Graphic Reproduc- tion N=11	12	27.3	M
Newspaper Shop Practices N=12	13	25.0	S
Labor Problems N=12	14	25.0	M
Composing Machines N=17	15	23.6	S

^aM=Management courses
S=Skills courses

^bN=Number of graduates who took the course

printing field. Four of the seven which were of benefit to more than three-fourths of the graduates' jobs were management courses--Plant Administration (85.2 per cent), Research Methods in Communication (80 per cent), Labor and Personnel (78.7 per cent) and Production Control (78.4 per cent).

The remaining three which were of benefit to more than three-fourths of the graduates in printing were Lithography (84 per cent), Press and Bindery Problems (80 per cent) and Photography (75.8 per cent). All three were specifically related to many technical areas in the printing industry.

Between 66 and 75 per cent of the graduates in printing fields found Production and Pricing, Trends in Graphic Reproduction, Sales and Promotion and Labor Problems of benefit in their work.

The remaining courses were all skills-related and were of benefit to less than two-thirds of graduates in the printing field. These were Typography (62.7 per cent), Newspaper Shop Practices (56.6 per cent), Composing Machines (50 per cent) and Newswriting and Reporting (37.5 per cent).

As a whole, the percentage of graduates in non-printing fields for whom courses were of benefit was quite low compared to graduates who held printing jobs. The range of percentages was from 23.6 per cent for Composing Machines to 56.6 per cent for Newswriting and Reporting. The exception was Newswriting and Reporting which ranked number one in benefit to non-printing graduates and fifteen in benefit to graduates in printing jobs. This was because there was a relatively high percentage of graduates in the military who were in communication

or public information jobs compared to the percentage of graduates in the printing field who held similar types of jobs. With the exception of Newswriting and Reporting and Photography, all skills courses were of benefit to less than one-half of graduates in non-printing fields.

Management courses which were of benefit to the jobs of less than one-third of graduates in non-printing fields were Trends in Graphic Reproduction (27.3 per cent) and Labor Problems (25 per cent).

Although there were considerable differences in the percentages of graduates in both printing and non-printing fields who benefited from each course, there were courses which ranked either high or low in benefit to graduates in both groups.

Ranking high were Plant Administration, Research Methods in Communication and Labor and Personnel, all management courses. Photography was the only skills course which graduates in both printing and non-printing fields found relatively high in benefit to their jobs.

Skills courses which were of benefit to the smallest percentages of all graduates were Typography, Composing Machines and Newspaper Shop Practices. Labor Problems was the only management course which was low in benefit to the jobs of either of the groups.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study was conducted among 124 graduates of South Dakota State University who had earned either a Bachelor of Science degree, a Master of Science degree, or both, in printing management between 1956 and 1970. The study had two major objectives. First, it was designed to gather descriptive data about the alumni, including demographic, educational, employment and income information. Second, it was designed to obtain the graduates' opinions toward various aspects of the printing management program at South Dakota State University.

A mail questionnaire was used to gather the information. This was first pre-tested with seven alumni who had earned the combination printing and journalism degree. The final questionnaire, cover letter and business reply envelope were mailed to the survey population on December 1, 1970. A follow-up mailing was made to non-respondents on December 28, 1970, and a cut-off date was established on January 11, 1971, six weeks after the first mailing.

Data from the questionnaire were punched into electronic data processing cards and tabulated into frequency distributions using the university computer and card-sorting facilities. The graduates were separated into two groups. Group I (BS) graduates were those who held only the Bachelor of Science degree in printing management from South Dakota State University. Group II (MS) graduates were those who held two or more degrees, at least one of which was a printing management

degree which had been granted at South Dakota State University during the fifteen-year period between 1956 and 1970.

Although pertinent literature was limited, a number of periodicals and unpublished studies were reviewed to provide background information on the problem and to aid in planning and developing the study.

Conclusions

Interest in the study seemed to be high as 98 of the 124 graduates returned completed questionnaires for a response rate of 79 per cent. Of those who responded, 62 were Group I (BS) graduates and 36 were Group II (MS) graduates.

Although most South Dakota State University students have been from South Dakota, almost two-thirds of the printing management graduates had enrolled as non-residents. Resident students tended to enroll most often in the undergraduate printing program, whereas non-resident students enrolled in both the graduate and undergraduate printing programs in about equal numbers. Only 11 per cent of the resident students were Group II (MS) graduates.

Only 12.2 per cent of the 124 printing management graduates remained in South Dakota after graduation, reflecting a lack of opportunity in the state for those seeking printing careers. The remaining 87.8 per cent lived in 29 states and five foreign countries. All but one of those living in foreign countries were in military service. South Dakota, Minnesota and Illinois were the residences of one-third of all graduates.

All 62 of the Group I (BS) graduates earned the Bachelor of Science degree in printing management at South Dakota State University. Thirty-two of the thirty-six Group II (MS) graduates earned the master's degree in printing management at South Dakota State University. Two of these also held doctoral degrees in communications fields from other universities. The remaining four held only the bachelor's degree in printing management from South Dakota State University but had earned master's degrees in fields other than printing.

Almost half or 46 (47 per cent) of the respondents earned their printing management degrees between 1966 and 1970. Of these, 32 were Group I (BS) graduates and only 14 were Group II (MS) graduates. Forty (41 per cent) received printing degrees from South Dakota State University between 1961 and 1965. During this five-year period, only 18 were Group I (BS) graduates compared to 22 who were Group II (MS) graduates. This indicated an increased interest of enrollees in the undergraduate printing program in recent years and a relative decrease in interest in the graduate program. These findings substantiated, in part, the decision to phase out the graduate printing program. Only 12 per cent of the respondents had earned degrees before 1961. All of these were at the undergraduate level as the first master's degrees were not awarded until 1961.

Some 73.8 per cent of all Group I (BS) graduates and 71.4 per cent of Group II (MS) graduates would enroll again in the printing program at South Dakota State University if they could repeat their college years. This was 73 per cent of all graduates responding.

Another 11.4 per cent would enroll in printing at other colleges and, 15.6 per cent would choose other fields of study.

More than three-fourths (75.5 per cent) of the graduates were working in fields directly related to the printing industry. Only 11.2 per cent were working in non-printing fields. The remaining 13.3 per cent were in the military, and many of these indicated a desire to work in the printing field upon discharge.

Almost half of the graduates held jobs in two areas--commercial printing and packaging (28.5 per cent) and teaching (18.4 per cent). Other printing fields in which graduates worked included newspapers, printing equipment and paper manufacturing and/or sales, government printing procurement (civil service) and other miscellaneous printing areas. The largest percentage of Group I (BS) graduates worked in commercial printing (34.9 per cent). Almost half (47.2 per cent) of the Group II (MS) graduates were in teaching.

Salaries for all graduates ranged from less than \$7,000 to more than \$18,000 annually with the average salary being \$11,700. Graduates who held a master's degree earned about 30 per cent more than those who held only a bachelor's degree, or \$13,600 compared to \$10,500.

Respondents who earned degrees during the first five-year period prior to the study (1966-1970) earned the lowest average salary of \$10,200. This was understandable since many of the graduates were in military service or had just begun their careers. The highest average salary of \$13,200 was earned by graduates of the 1961-1965 period. Graduates of the 1956-1960 period earned slightly less, or \$13,100. The 30 per cent difference in salaries of Group I (BS) and Group II (MS)

graduates was apparently the reason for the similarity of salaries of the two five-year periods. More than half of the graduates of the 1961-1965 period held master's degrees whereas all graduates of the 1956-1960 period held only the bachelor's degree but had been working five to ten years longer.

Graduates who worked in fields unrelated to printing earned the highest average salary of \$14,800. This was substantially higher than graduates in miscellaneous printing jobs who earned about \$13,700. Other fields of employment and average salaries earned in each were: civil service (\$13,500), printing equipment and paper manufacturing (\$13,200), teaching (\$12,700), commercial printing and packaging (\$12,200), newspapers (\$9,500), military service (\$7,800) and graduate school (less than \$7,000).

About 40 per cent of the graduates indicated their printing management training at South Dakota State University had been largely general and theoretic. The remaining respondents thought their training had been either largely practical and specific (31.2 per cent) or closely balanced between theory and practical experience (29.2 per cent).

Two-thirds of all respondents, however, believed that ideal printing management training should be balanced between theory and practical experience rather than leaning in either the theory or practical experience directions. Only 18.3 per cent thought that ideal printing education should be theory oriented, and only 15 per cent thought it should stress practical training.

Mentioned most often by graduates as aspects of the printing management program they liked most were the balanced curriculum and application of theories in practical laboratory situations (20.4 per cent); the relaxed friendly atmosphere, freedom of discussion and good student-teacher relationships (20.4 per cent); small classes and individual attention (19.4 per cent); and quality, vitality and dedication of instructors (17.3 per cent).

Mentioned by 34.7 per cent of the graduates as the aspect of the printing program they disliked the most was the emphasis on outmoded printing techniques and small shop methods. In conjunction with this, 14.3 per cent thought there was a lack of depth in business and management courses needed in big business situations. Other aspects least liked were: the lack of exposure to new processes and techniques used in the industry (14.3 per cent); poor quality of instructors (12.2 per cent), and overemphasis on production in the printing laboratory (11.2 per cent).

Many of the things graduates listed as most needed improvements in printing education were basically remedies to the situations they disliked about the printing program at South Dakota State University. These included: placing stronger emphasis on scientific management techniques needed in both printing and non-printing fields (31.6 per cent); the need for more cooperation between education and the printing industry to determine the needs of both (13.3 per cent); upgrading the quality of the teaching staff (11.2 per cent); and de-emphasizing outmoded skills in the curriculum (9.2 per cent).

Some paradoxes appeared when graduates rated courses in terms of (1) how adequately each course prepared them for the jobs they held, and (2) the percentage of graduates who found courses they took to be of benefit to them in their work. For one thing, some courses the largest number of graduates rated as being highly adequate in preparing them for their jobs were considered by many to be of no benefit in their work. Conversely, some courses considered by many graduates to be of benefit to them in their work were rated as adequately preparing them for their jobs by only a small number of graduates.

Rated high in benefit, but low in adequately preparing graduates for jobs held were three management courses--Plant Administration, Labor and Personnel and Production Control. Lithography, a skills course, was also rated this way by graduates. Rated high in adequacy, but of benefit to few graduates who took the course were three skills courses--Composing Machines, Typography and Newspaper Shop Practices. One management course--Labor Problems--also showed this inverse relationship.

It can be speculated that this relationship was probably caused by a difference in the demands of the graduates' jobs compared to the quality and/or depth of coursework taken by them as students. In some jobs, particularly those which are management oriented, the knowledge and skills required by the job probably exceeded the knowledge imparted in the classroom situation since it is difficult, if not impossible, to bring realistic management problems and situations into the classroom. In contrast, other courses considered to be adequate, or more than

adequate, were probably those in which the requirements and demands of the job did not exceed the limits of the educational experiences.

As a whole, the more generalized management courses and skills courses related to modern printing processes were of benefit to the largest percentage of graduates in both printing and non-printing fields. More specialized management courses and skills courses considered to be somewhat outdated were believed to be of benefit to the smallest percentage of graduates.

Recommendations

Findings in the study suggest the following recommendations:

1. Increased emphasis should be placed on scientific and modern management techniques and skills needed and used by large business organizations. Data processing and computer applications to business in general and to the printing industry in particular should become an increasingly important segment of the total printing management curriculum.

2. New reproductive techniques and technical advances in the printing industry should be continually surveyed and students exposed to them either through classroom work or by face-to-face contact whenever possible. The relevance of practical skills should be evaluated periodically and their emphasis in the program brought into proportion with the need for these skills by managers in the industry.

3. Every attempt should be made to determine the most beneficial and desirable combination of practical experience and theory in printing

education. This combination should be evaluated continuously as the needs of the industry change.

4. Every attempt should be made to increase communication between the printing industry and the institutions responsible for printing education. Assistance, both financial and educational, should be sought from the industry to strengthen and modernize existing programs.

5. Follow-up studies should be made of all printing management graduates at periodic intervals to obtain feedback concerning changes in the industry and thereby determine subsequent changes in the educational needs of management personnel.

6. The educational institution should attempt to obtain additional information concerning all aspects of the printing industry, and this information should be communicated to printing students in the form of continuous counseling and changing printing management programs.

7. Steps should be taken to increase the number and overall percentage of resident students in the printing management program inasmuch as South Dakota State University is a state-supported institution provided for the benefit of state residents. Steps should also be taken to provide placement of graduates within the state to reverse the migratory trend shown by both resident and non-resident students. Should the migratory trend continue, consideration should be given to dropping all printing education at South Dakota State University as the state derives little benefit from its investment in the program.

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APPENDIX A

DESCRIPTION OF MANAGEMENT AND SKILLS COURSES

1. General Management: This course is designed to provide a broad overview of management principles and practices. It covers topics such as organizational structure, planning, decision-making, and communication. The course is suitable for students with no prior knowledge of management.
2. Financial Management: This course focuses on the financial aspects of management, including budgeting, cost accounting, and financial analysis. It is designed for students who have completed the General Management course or have a background in accounting.
3. Human Resource Management: This course explores the management of people within an organization. It covers topics such as recruitment, selection, training, and performance appraisal. The course is suitable for students who have completed the General Management course or have a background in psychology or sociology.
4. Marketing Management: This course examines the marketing function in an organization. It covers topics such as market research, product development, pricing, and distribution. The course is suitable for students who have completed the General Management course or have a background in business.
5. Operations Management: This course focuses on the management of the production process. It covers topics such as inventory control, quality management, and production scheduling. The course is suitable for students who have completed the General Management course or have a background in engineering or manufacturing.
6. International Management: This course explores the challenges of managing in a global context. It covers topics such as cross-cultural communication, international trade, and global strategy. The course is suitable for students who have completed the General Management course or have a background in international business.
7. Research Methods: This course provides students with the skills and techniques needed to conduct research in management. It covers topics such as research design, data collection, and data analysis. The course is suitable for students who are interested in pursuing a career in research or who want to develop their research skills.

Management Courses

Labor and Personnel--Principles of labor administration and labor relations; labor market trends; worker motivation and wage determination. Personnel department administrative practice.

Labor Problems--Intensive study of labor negotiations, contracts and labor management relations in the industry (graduate).

Plant Administration--Introduction to management principles with major emphasis on the problems of operation and control which result from human rather than purely physical factors.

Production and Pricing--Franklin catalog, estimating procedures, office records, legal requirements, standards of industry.

Production Control--Time and motion studies, operations research, lines of flow; analysis of cost factors in production (graduate).

Research Methods in Communication--Survey of a major research in communications, study and methods employed; elementary statistical procedure (graduate).

Sales and Promotion--Principles of promotion, salesmanship and printing trade customs; servicing accounts.

Trends in Graphic Reproduction--Current problems in industry, including those being studied in laboratories and research centers; automation, computers and materials (graduate).

Skills Courses

Composing Machines--Introduction to linecasting and cold-type composition equipment. Principles of style, setup and operation; straight matter, advertising and tabular matter and routine maintenance.

Lithography--Principles of camera, darkroom, platemaking and press, films, plates and press run stability, technological changes (graduate and undergraduate).

Newspaper Shop Practices--Laboratory work on the Volga Tribune or other selected and approved publications.

Newswriting and Reporting--Gathering, evaluating and writing news.

Photography--Fundamentals of camera and darkroom equipment.

Press and Bindery Problems--Press and bindery planning and problem solving. Principles of paper handling and automatic equipment.

Typography--Principles of display, design, copyfitting and layout for advertising and commercial printing; includes both letterpress and lithographic process techniques.

APPENDIX B - 2011, 2012
PRE-TEST LETTER

Dear

I hope this letter finds you well. I am currently in the process of preparing for the upcoming semester at South Dakota State University. My primary focus for the upcoming semester is to ensure that I am well-prepared for the challenges ahead.

The purpose of this letter is to inform you of the progress of my studies and to express my appreciation for your support. I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study.

I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study. I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study.

Please let me know if you have any suggestions or if you need any further information. I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study.

I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study. I am currently working on my thesis, which is a significant project for me. I am also taking several courses that are relevant to my field of study.

Thank you for your time and support.

Sincerely,

Steve Christensen
Graduate Student

October 30, 1971

Dear

A study is being conducted in the Department of Journalism and Mass Communication at South Dakota State University. My thesis for the Master of Science degree in printing management is based on this study.

The purpose of the study is to determine the status of graduates of the printing program, their evaluation of their college preparation and their opinions of printing education at South Dakota State University.

Enclosed is a draft of the questionnaire to be used in the study, and I would appreciate it very much if you will help me take the "bugs" out before it is sent out to former printing students. Please fill out the questionnaire and write your criticisms near the questions which you find confusing or difficult to answer.

Please make any suggestions which you think will improve the questionnaire. Do you think any other questions are needed?

We are sending this pre-test questionnaire to only a small number of graduates. Will you please return it to us immediately with your criticisms and/or suggestions? Enclosed is a business reply envelope to facilitate your response.

Thank you for your assistance.

Sincerely,

Bruce Oberlander
Graduate Student

APPENDIX C

COVER LETTER

I am pleased to inform you that your application for admission to the Graduate School of Business Administration has been received. The Graduate School is currently accepting applications for the Fall semester. Your application has been forwarded to the Graduate School for consideration.

The Graduate School is a highly selective institution. It is committed to providing a high quality education for its students. The Graduate School is currently accepting applications for the Fall semester. Your application has been forwarded to the Graduate School for consideration.

I am pleased to inform you that your application for admission to the Graduate School of Business Administration has been received. The Graduate School is currently accepting applications for the Fall semester. Your application has been forwarded to the Graduate School for consideration.

I am pleased to inform you that your application for admission to the Graduate School of Business Administration has been received. The Graduate School is currently accepting applications for the Fall semester. Your application has been forwarded to the Graduate School for consideration.

Sincerely,

Walter D. Williams
Graduate School

December 1, 1970

Dear

I am making a study of all 1956 to 1970 printing management graduates of South Dakota State University. The purpose is to determine the graduates' status since they received their degrees from State University, how they evaluate their college preparation and their opinions of the printing management program.

Due to the limited number of graduates involved in the study, it is important that I receive your completed questionnaire. You have full assurance that all information will be completely confidential and will appear only in statistical form as a part of the overall findings. All identifiable material (e.g., envelopes) will be destroyed by myself and not disclosed to any other individuals.

I am trying to complete this survey as soon as possible so would appreciate the return of the completed questionnaire at your earliest possible convenience. Enclosed is a business reply envelope to facilitate your response.

Please accept my sincere thanks for your time and consideration in assisting me with this study. Hopefully it will be valuable in assessing the strengths and weakness of the printing management program and in determining the progress the printing management alumni have made in their careers.

Sincerely,

Bruce Oberlander
Graduate Student

APPENDIX D

QUESTIONNAIRE

SURVEY QUESTIONNAIRE FOR PRINTING MANAGEMENT GRADUATES

1. In what state or country were you born? _____
2. What was the status of your residency upon enrolling at South Dakota State University?
 _____ resident of South Dakota _____ non-resident of South Dakota
3. In what state or country are you now living? _____
4. Approximately how old were you when you had your first major contact with printing
 (printer's devil, after-school job, vocational printing, etc.)?
 _____ less than 12 years old (grade school) _____ between 15 and 17 (high school)
 _____ between 12 and 14 (junior high) _____ over 18
5. Complete the following educational information (List only degrees completed):

Degree	Year earned	School at which earned	Major(s)	Minor(s)
BS or BA				
MS or MA				
Ph.D				
Other (if any)				

6. Are you now working toward a graduate degree? _____ yes _____ no
 - a. If yes, please complete:
 Degree pursued: _____ MS or MA _____ Ph.D _____ other (list) _____
 Major field _____
 School where pursued _____
 Percent completed: _____
 _____ less than 33%
 _____ 34% to 66%
 _____ more than 67%
 - b. If no, do you plan to work for one in the future? _____ yes _____ no _____ undecided
7. How many time have you returned to SDSU for visits, business, etc. since graduation?
 _____ none _____ 1 to 4 times _____ 5 to 9 times _____ 10 or more times
8. What is the relationship between your major course of study and what you are now
 doing for a living?
 _____ much _____ some _____ little _____ none
9. If you had your college years to do over again, would you (check one):
 _____ attend SDSU in the same field
 _____ attend SDSU in a different field
 _____ attend a different school in the same field
 _____ attend a different school in a different field

10. Field in which you are presently engaged or employed (if you have more than one job, list the job from which you receive the major portion of your income):
 _____ Military service Branch _____
 _____ Printing equipment manufacturing and/or sales
 _____ Paper manufacturing, paper supplier and/or sales
 _____ Commercial printing (on a job basis)
 _____ Commercial printing (magazine and/or book publishing)
 _____ Newspaper _____ daily _____ weekly _____ other (list) _____
 _____ Packaging and/or container manufacturing
 _____ Civil service Department _____
 _____ Teaching _____ high school level _____ college level
 _____ Technical experimentation and/or research
 _____ Public relations
 _____ Other (please be specific) _____
11. If you are in the military, do you plan to make it a career?
 _____ yes _____ no _____ undecided
12. What is your present position, rank or title? _____
13. Rate your printing management education at SDSU as a factor in securing the position you now hold:
 _____ necessary _____ incidental
 _____ important as a general background _____ no value
14. Since graduation from SDSU, for how many employers have you worked (include active duty in the military and self-employment each as one employer)? _____
15. For how many years have you been with your present employer (if now in the military, for how many years have you served to date)? _____
16. Do you now own (or are you in the process of buying) your own printing business?
 _____ yes _____ no
- a. If so, for how many years have you been self-employed? _____
17. On the average, how many hours a week do you spend on the job (if you work at more than one job, the number of hours you spend at your major job)?
 _____ less than 40 hours _____ 50 to 59 hours
 _____ 40 to 49 hours _____ 60 or more hours
18. What is your gross annual income?
 _____ less than \$7,000 _____ \$12,000 to \$14,999
 _____ \$7,000 to \$8,999 _____ \$15,000 to \$17,999
 _____ \$9,000 to \$11,999 _____ \$18,000 or more
19. Do you plan to stay in your present field until retirement?
 _____ yes, definitely _____ yes, probably _____ unlikely _____ no _____ undecided
20. What is the size of the city in which your job is located?
 _____ under 25,000 _____ 100,000 to 499,999
 _____ 25,000 to 99,999 _____ 500,000 or more
21. What is your opinion of the adequacy of management training in printing at SDSU?
 _____ extremely valuable _____ valuable _____ inadequate _____ extremely inadequate
22. What is your opinion of the adequacy of the practical (skills) training in printing?
 _____ extremely valuable _____ valuable _____ inadequate _____ extremely inadequate

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23. Do you feel your printing management training at SDSU was:
 _____ largely practical and specific
 _____ largely general and theoretic
 _____ closely balanced between the two
24. Compared with your own SDSU education, what do you think should be the ideal in printing education at the college level?
 _____ should stress more theory
 _____ should stress more practical experience
 _____ should be balanced between theory and practical experience
25. How much involvement do you feel the printing industry should have in promoting graphic arts and printing education (in the form of seminars, donation of equipment, financial aid to students, etc.)?
 _____ much _____ some _____ little _____ none
26. In your opinion, what kind of job is SDSU doing to provide qualified management manpower for the printing industry?
 _____ excellent _____ good _____ fair _____ poor _____ no opinion
27. Below is a list of courses which have been offered as a part of the Printing Management curriculum since 1956. Please rate the adequacy of each of the courses which you took in preparing you for your present position and also indicate whether it is of benefit to you in your present job.

CHECK ONLY THOSE COURSES WHICH YOU TOOK !!	Adequacy (check one)			Beneficial to present job or situation	
	more than adequate	adequate	less than adequate	yes	no
Composing Machines (linotype)	()	()	()	()	()
Press, Bindery Problems	()	()	()	()	()
Plant Administration (Printing Plant Management: Purchasing	()	()	()	()	()
Newspaper Shop Practices	()	()	()	()	()
Sales and Promotion	()	()	()	()	()
Photography	()	()	()	()	()
Production and Pricing	()	()	()	()	()
News writing and Reporting	()	()	()	()	()
Lithography (basic and/or advanced)	()	()	()	()	()
(Problems and) Trends in Graphic Reproduction	()	()	()	()	()
Typography	()	()	()	()	()
Labor Problems (in the Typographic Industry).	()	()	()	()	()
Research Methods in Communication	()	()	()	()	()
Production Control.	()	()	()	()	()
Labor and Personnel (Printing Plant Management: Labor).	()	()	()	()	()

Be certain that you have checked only courses which you took while a student at South Dakota State University.

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28. Please indicate how strongly you feel the following areas should be stressed in future printing management education programs:

	should stress strongly	should be included	should be excluded
Production and manufacturing control . . .	()	()	()
Computer sciences	()	()	()
Bindery operations	()	()	()
Accounting	()	()	()
<hr/>			
Sales and promotion.	()	()	()
Composing machines	()	()	()
Management sciences and techniques . . .	()	()	()
Photocomposition	()	()	()
<hr/>			
Labor/management relations	()	()	()
New processes and trends	()	()	()
Lithography and camera techniques. . . .	()	()	()
Presswork.	()	()	()
<hr/>			
Business finance	()	()	()
Typography and design.	()	()	()
Other	()	()	()
Other	()	()	()

The following questions are "open ended" and are to be answered as briefly and concisely as possible.

29. What did you like most about Printing Management at SDSU and why?

30. What did you like least about Printing Management at SDSU and why?

31. What do you think is the most needed improvement in graphic arts and printing education at the college level?

APPENDIX E

FOLLOW-UP LETTER

December 28, 1970

Dear

Approximately four weeks ago a letter and questionnaire were sent to you concerning a study of printing management graduates of South Dakota State University being done in the Department of Journalism and Mass Communication.

A large number of graduates have already returned the questionnaire, but as yet we have not received a reply from you.

Because the number of printing management alumni is quite small, it is extremely important that the information from every questionnaire be included to assure a valid and accurate study.

Will you take a few minutes to fill out the questionnaire and return it to us. If you have already mailed it, thank you for your cooperation.

Sincerely,

Bruce Oberlander
Graduate Student

P.S. Another questionnaire and business reply envelope are enclosed in case you have lost or misplaced the ones sent earlier.