

TABLE 1

**JOB DESCRIPTION—TEACHER OF SCIENTIFIC MANAGEMENT**  
(Preceded by two years of research and industrial experience)  
*General Statement*—This vocation consists essentially in collegiate teaching of scientific management, using the principles of Taylor as a foundation, and applying these not only to industrial and business operations, but also to the problems of organization and of industrial relations, economics, costs and budgets, merchandising and the human adaptation of the man to his job.

*General Objectives of the Job*

1. Add to present knowledge and experience in scientific management through this two year fellowship
2. Teach scientific management in a school of collegiate grade as a career
3. Aim to develop students into teachers of scientific management or into demonstrators of scientific management in industry and business
4. Perform special activities indicated in job specifications

TABLE 2

## JOB SPECIFICATIONS (Condensed)

1. *General Qualifications* (Education, character, health, accept conditions)
2. *Teach—General* (Show proper aptitudes and abilities for teaching as a profession)
3. *Teach Scientific Management* (Acquire, organize and impart special information appropriate to this subject. To this end acquire especially experience and familiarity with actual industrial and business operations and practices with reference to: (1) Practical conditions to which scientific management may be applied; (2) Methods of applying it to these conditions; (3) Social and economic implications of scientific management practices.
4. *Inspire Students* with a desire to disseminate the information and its applications, and to create new values, as a contribution to the world's wealth, industrial progress, economic advancement and social welfare.
5. *Continue in Teaching of Scientific Management* as a permanent profession.
6. *Perform Additional Activities:*
  - (a) Grasp and solve actual industrial problems.
  - (b) Co-operate understandingly and successfully with industrial executives.
  - (c) Write in furtherance of scientific management principles and practices.
  - (d) Conduct continuing research in scientific management problems.
  - (e) Exercise leadership in the field of scientific management.

intellect, knowledge, skills and aptitudes required for the performance of these things, but also the personality, the desires and preferences which would tend to make the man do these things happily and with enthusiasm.

Thus items B and D in Table 3, "Man Specifications," refer particularly to Item 3 in Table 2, "Job Specifications." These are shown in detail in Table 4.

It remained to ascertain the actual and relative strength of these and other factors in each individual. For this purpose a combined personal history sheet and list of questions appropriate to the personality and aptitude requirements of the job were used. Most of the latter questions were supplied with five alternate answers. They were thus definitely ratable. Some alternate vocational preferences were also given for checking. The college record was accepted in lieu of an intelligence test and as evidence of various types of intellectual performance, but various specific intellectual responses were also checked by ratable questions similar to those for the personality.

The questionnaire is summarized in Table 5. Each kind of information sought is arranged under its appropriate heading, for convenience in evaluation, although some cross references were necessary. Ratable questions, in accordance with our present technique, are similarly placed under their appropriate headings. It will be observed that these were not used as a substitute for the more usual information sought on an application blank but were an entirely additional factor designed to increase the objectivity and scope of the data obtained. These ratable questions themselves will vary for different types of jobs. The aim is to make every item of data applicable as directly as possible to the actual performance requirements of the type of job in question.

The standard man analysis form was now keyed to the numbered items in the questionnaire, as shown in Table 4.

As the filled-in questionnaires were received from the applicants each item was rated and the score entered in the appropriate place or places on a tally sheet. Meanwhile a similar but shorter questionnaire had been sent to the references given, and these were also scored and entered. General personality was checked by a personal interview, but nothing was disclosed which tended to change the results. The items and groups were assigned weights and added up, and the final score was expressed in a single percentage. It is interesting to note that most of the applicants showed some particular disability—fell below the critical score

TABLE 3

MAN-SPECIFICATIONS (Headings only)	
a.	Desire to teach (in general)
b.	Desire to teach scientific management (additional factors)
c.	Can teach (in general)
d.	Can teach scientific management (additional factors)
e.	Wants to teach permanently
f.	Can teach permanently
g.	Can inspire students and others (additional factors)
h.	Can grasp and solve actual industrial problems
i.	Can deal with industrial executives
j.	Can write
k.	Can conduct research
l.	Character
m.	Health
n.	General personality

TABLE 4

DETAIL OF MAN SPECIFICATION AND KEY TO QUESTIONNAIRE	
A. <i>Desire to Teach</i> (in general)	
1.	To Deal with Ideas ..... 31G
2.	To Deal with People ..... 34G R
3.	To Render Service ..... 50, 58b, R
4.	To Help the Young ..... 42, 43, 55, R
B. <i>Desire to Teach Scientific Management</i> (additional factors)	
1. To Make Things Better or More Perfect ..... 47a, 53, 32G, R	
2.	To Organize Concrete Things ..... 29G, R
3.	To Deal with Mechanical Matters ..... 58G, R
4.	To Foster Economy ..... 28, 37, 38, R
5.	To Observe System and Order ..... 17, R
6.	To Organize People ..... 30G, R
7.	To Deal with Sociological and Economic Aspects ..... 12, 14, 62b

*Note:* Numbers in right hand column refer to questions and data. G denotes a group. R denotes that check information will be sought from references. RR indicates that references are a still more vital source of information.

in one or more respects without sufficient compensating circumstances—and the final tabulation did not have to be carried out in their cases.

Reviewing the present applications of the technique, it appears that the original analysis of jobs can be made more completely and in more accurate detail, with respect to the personal requirements in an applicant. The application blank, or blanks, while longer yield more definitely appraisable information in this respect. The same may be said for the reference questionnaire. With the man-job analysis before him, the interviewer is also afforded an additional technique, directly purposive in its methods and organizable in its results. The methods used in employment can also be profitably applied to cases of reassignment or promotion. In

TABLE 5

## GENERAL HEADINGS OF QUESTIONNAIRE

*Personal Data*

(Name, address, marital status, economic status, etc.)

*Education and Intellectual Characteristics*

(Schooling, test ratings, scholastic honors, research and special work, work bearing on scientific management, specific interests in management and other subjects. Also ratable questions on specific intellectual aptitudes, with the five degrees of response indicated for checking.)

*Extra-Curricular and Other Social Activities and Interests*

(Co-operation and leadership in grammar school, high school and college; leisure memberships; offices and honors; associates; leisure relaxations and amusements. Also ratable questions on sociability.)

*Teaching Experience and Interests*

(Subjects, and time taught; relation to scientific management; particular interests in teaching; most successful subjects.)

*Other Personal Interests and Activities*

(Ratable questions on additional factors of present importance, indicated in the man analysis.)

*Other Vocational Experiences and Interests*

Jobs held; details; preferences for particular factors; avocational activities; writing; ratable questions on mechanical interests and aptitudes; selling experiences; present and past vocational preferences; ratable choice of alternative vocational situations.)

*Request for Own Personality Sketch and Names of References*

post-employment procedures, a number of future applications appears logical. Through a better understanding of the individual, light should be thrown on such matters as training, methods of supervision, and incentives.

I have long held the view that failure or success in the employe was more often a matter of personal adjustment to the job than of lack of technical skill; that is, if a man were hired at all he generally had evidenced sufficient intelligence and skill to enable him to carry on the operations. Subsequent failures on the job seemed to be due largely to factors within his own personality. This was interestingly corroborated by a symposium of twenty-seven major executives and responsible personnel officers on the principal causes of failure as they had observed them. Out of twenty principal causes most generally agreed upon, seventeen were personal to the employe and only three had to do with intelligence, knowledge or skill.

Some of these personal failures arise from lack of capacity for adjustment to the environment, quite as much as to the work itself. This phase should be given careful consideration in both the