PROFILE OF SELECTED FILIPINO SCIENTISTS: SOCIOCULTURAL AND PERSONALITY CHARACTERISTICS

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Abstract

This study looked into the personality, family background, education and training, special qualities, and the process of research conceptualization and production of forty-two outstanding Filipino scientists. Using an auto-biographical technique, the researcher found out that most were males, of middle class origin, with at least one parent who was a strong influence in their lives. They were bright if not superior in intellectual abilities. Among the factors that influenced their choice of a science career – a parent or member of the family, scholarships, interest in and or abilities in science and mathematics, community, the most profound was a teacher or a mentor. Among the common qualities of Filipino scientists were strong inclinations for order and discipline, a desire for closure, and habits of personal leadership and management. They had a strong desire for intellectual adventure, and along with a patriotic spirit, a strong sense of mission. The processes of association, imagination, and "piling up of ideas", were evident in the conceptualization and production of research. The scientists also explored extensions, variations, and missing gaps of previous researches. Writing and documentation were part of the efforts to pin down ideas and bring these to fruition. Pedagogical and policy implications were drawn from the study.

Keywords: Filipino scientists, scientific personality

Introduction

The importance of scientists needs no argument. Humanity profits from people who have the ability to isolate an antibiotic, to discover the healing properties of plants, to design an airplane, to rehabilitate the environment, etc. We will continue to be indebted to the men and women known as scientists. But who and what are scientists? How are they developed? Are there qualities of ability, family background, education and training that make them? Are there special qualities of personality and intelligence that mark the person for a career in science? These questions have practical importance considering the dearth of scientists in the Philippines and the difficulty of recruiting young people for science careers.

Early studies

Anne Roe conducted one of the earliest studies over a three-year period in the early 1950's (Roe, 1952). University committees all over the country as top ranking research scientists selected Dr. Roe's subjects. There were sixty-four of them all, averaging 48 years old. The most striking characteristic was a high level of intelligence. They likewise did extremely well on tests of spatial perception, mathematics, and verbal reasoning. As far as habits of thinking, there were some differences among the sixty-four scientists. All reported a considerable amount of abstract thinking, particularly at crucial points. In several aspects, the scientists' backgrounds differed very much from the population at large. There were no Catholics; five came from Jewish homes and the rest had protestant backgrounds. The economic levels were varied, ranging from very poor to well-to-do. Another striking fact is that 53 percent of the scientists were sons of professional men; not one was a son of an unskilled worker. Most of the scientists developed intellectual interest at an early age.

Thomas Sprecher (1963) accumulated a batch of critical incidents describing the characteristics of successful engineers at a major steel company. He analyzed and became convinced that creativity involves ideas, work habits and opportunity.