

Factor Analysis Encyclopedia Article

Factor Analysis

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Factor Analysis Encyclopedia Article.....	1
Contents.....	2
Factor Analysis.....	3

Factor Analysis

The process of transforming statistical data, such as some sort of measurements, into that usually combine a number of independent is called **factor analysis**. The techniques for determining or estimating various parameters in such algebraic or the values of the variables therein are also included in the **definition** of this term. Many techniques for performing factor exist. Because they are the most likely to provide direct numerical results, the most accepted by mathematical theoreticians require laborious computations to be carried out. For centuries, as mathematics developed, this fact limited the accuracy and amount of analysis that any particular mathematician was able or willing to attempt. But with the advent of sophisticated and computers, such computations are much easier and faster to perform with greater accuracy than ever before, allowing factor analysis to be completed much more quickly even with extremely complex **equations**.

The goal of factor analysis is to account for a set of observed results in terms of variables in the least complicated equation or set of equations possible. In addition, an attempt is made to identify within the equation(s) that are common to or independent of other factors. If one type of factor has an influence on all of another type, it is known as a general factor, if only on some of the other type, it is called a group factor. A common factor with both positive and negative effects on others is called bipolar. Identification of the types and values of factors is vital to factor analysis.