

# THE CRITICAL INCIDENT TECHNIQUE BIBLIOGRAPHY

Grace Fivars & Robert Fitzpatrick, Ph. D.

The critical Incident Technique Bibliography (CITBib) is a database covering more than 50 years of research on the development and use of a research method developed during World War II by **Colonel John C. Flanagan, Director of the Division of Aviation Psychology**. In 1947, Dr. Flanagan and several wartime colleagues, on faculty at the University of Pittsburgh, established the first of numerous **American Institutes for Research. AIR** now has offices from Washington, D.C. to Palo Alto, California.

The **Critical Incident Technique** was best described in Flanagan's initial article in the July 1954 **Psychological Bulletin**.<sup>\*</sup> The method has been used in several thousand government, business, industrial and educational research projects, doctoral dissertations, professional papers, etc.

The technique involves collection of brief, written, factual reports of actions in response to explicit situations or problems in defined fields. "Incident reports" may be written by participants who took action, by qualified observers, or both. An incident may be defined as "**critical**" when the action taken contributed to an **effective** outcome (helped to solve a problem or resolve a situation). An incident may also be considered "**critical**" when the action resulted in an **ineffective outcome** (it partially resolved a problem, but created new problems or need for further action) .A critical incident report should describe **a situation, and an action that was important, significant, "critical" in determining whether the outcome was effective or ineffective.**

Flanagan emphasizes that "the critical incident technique ...should be thought of as a flexible set of principles which must be modified and adapted to meet the specific situation a hand." Proposals must include a clear, concise statement of the purpose or aim of the study; specifications for the types of data to be collected; plans for selection of the population to be used; guidelines for observing, interpreting and classifying critical incidents; plans for analyzing data and for interpreting and reporting results.

Because critical incident data can be analyzed both qualitatively and quantitatively, results tend to be more precise, more explicit and more usable than opinion poll data in studies issues related to education, business, industry, health care, and professional and working life.

The critical Incident Technique has been used to study "what people do" in a variety of professions, which provided data used to identify factors important in defining criteria for "acceptable performance" in many fields. Analysis of thousands of incident reports from project participants and qualified observers have helped to describe "critical requirements" for performance in fields as diverse as piloting and navigating aircraft, improving the operation of complex devices, designing and manufacturing safer automotive equipment,

---

\* Flanagan, J. C. (1954, July) .The critical Incident Technique, *Psychological Bulletin*, 5(4), 327-358.

performing orthopedic surgery, providing safe/effective nursing care, and improving working conditions in many other fields of human endeavor.

The technique has proven useful in research on ways to help people of diverse cultures, at all ages and stages, to improve the quality of life and living.

The *Critical Incident Technique Bibliography* includes reports, dissertations, books and professional papers on the use of the critical Incident Technique for research in education, engineering, business, industry, psychology, science, medicine, nursing and other fields. This database should be a valuable resource for scientists, scholars, educators, doctoral students, as well as people in government, commerce, industry, and the general public.

The *Critical Incident Bibliography Database* was donated to the American Psychological Association by Grace Fivars and Robert Fitzpatrick, retired staff members of the American Institutes for Research.

Every effort was made to include relevant studies involving the use of the critical Incident Technique. However, since the method has been used worldwide, some studies may have been missed. Since the **Critical Incident Database** will always be "a work in progress," subject to periodic updating, researchers, graduate students and others are invited to submit abstracts, citations, dissertations, etc., as well as critiques, suggestions and corrections, to:

**Gary R. VandenBos, Ph.D., APA publisher,  
American Psychological Association  
750 First Street, NE, Washington, DC 20002-4242.**

## USING THE CRITICAL INCIDENT TECHNIQUE

The **Critical Incident Technique** is best described by Flanagan in his initial article in the July 1954 **Psychological Bulletin**. The critical Incident Method was used in more than a thousand government, business, industrial and educational research projects, and in dissertations, professional papers, etc.

The technique involves collection of brief, written, factual reports of actions taken in response to explicit situations or problems in defined fields. "Incident reports" may be written by people who took action in needed situations, by qualified observers, or both. An incident is defined as "**critical**" when the action taken contributed to an **effective** outcome (helped to solve a problem or resolve a situation; or led to development of a unique, creative project) .An incident may also qualify as "**critical**" when the action taken resulted in an **ineffective outcome** (e.g., a case when a partially resolved problem created new problems or the need for further action).

A critical incident report should describe **a situation, an action that was important, significant "critical" in determining the effectiveness or ineffectiveness of the outcome.**

Flanagan emphasized that "the critical incident technique... should be thought of as a flexible set of principles which must be modified and adapted to meet the specific situation at hand." Proposals must include a clear, concise statement of the purpose or aim of the study; specifications for the types of data to be collected; plans for selecting the population; guidelines for observing, interpreting and classifying the critical incidents; plans for analyzing data and interpreting and reporting results.

Because critical incident data may be analyzed qualitatively and quantitatively, results tend to be more precise, more explicit, and more usable than opinion poll data to study issues related to education, business, industry, health care, and professional and working life.

The critical Incident Technique has been used to identify "**what people do**" in a variety of professions; e.g. : to identify factors important in defining criteria for "acceptable performance" in many fields. Analysis of incident reports from participants and qualified observers have helped to describe "critical requirements" in fields as diverse as piloting and navigating aircraft, improving operation of complex devices, designing and manufacturing safer automotive equipment, performing surgery, providing safe/effective nursing care, and improving performance in many other fields.

The technique could be useful in studying the ways people develop new, unique designs or use ordinary materials in unique ways for unusual purposes. Results may prove useful in establishing criteria for evaluating or "judging" creative projects.

Grace Fivars