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The Critical Incident Technique

Abstract

{Excerpt} Organizations are often challenged to identify and resolve workplace problems. The Critical Incident technique gives them a starting point and a process for advancing organizational development through learning experiences. It helps them study “what people do” in various situations.

One might think there are no answers to the following questions: How fast can you think on your feet? How do you react in the face of the unexpected? How can you prepare if you cannot predict? And yet, there are.

Evidently, some behaviors contribute to the successor failure of individuals—and organizations—in specific situations. And so, responses to the unforeseen lie in identifying before the fact events or circumstances, or series of them, that are outside the range of ordinary human experiences.

The questions posed earlier are as old as mankind; but our ability to address them owes largely to the relatively recent work of John Flanagan. These days critical incidents can be harvested to provide a rich, personal perspective of life that facilitates understanding of the issues and obstacles people face every now and then and illuminates avenues for improvement (or replication if outcomes are effective)—avenues that may not be apparent through purely quantitative methods of data collection. This should matter to high-performance organizations.

Keywords

Asian Development Bank, ADB, poverty, economic growth, sustainability, development

Comments

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The Critical Incident Technique

By Olivier Serrat

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Tales of the Unexpected

One might think there are no answers to the following questions: How fast can you think on your feet? How do you react in the face of the unexpected? How can you prepare if you cannot predict? And yet, there are.

Evidently, some behaviors contribute to the success or failure of individuals—and organizations—in specific situations. And so, responses to the unforeseen lie in identifying before the fact events or circumstances, or series of them, that are outside the range of ordinary human experiences.

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*If history repeats itself,
and the unexpected always
happens, how incapable must
Man be of learning from
experience.*

—George Bernard Shaw



¹ John Flanagan (1906–1996), an American psychologist, devised aptitude tests for the selection of aircrews during the Second World War. To identify the skills servicemembers needed, trainees and their observers were asked to recount incidents when a subject had succeeded or failed. John Flanagan’s team then characterized common threads in the aptitude, proficiency, and temperament underlying success or failure. After identifying the critical requirements of a good pilot, copilot, navigator, and bombardier, he formulated tests that looked for those qualities. John Flanagan later adapted the technique to education. He questioned high-school students to discover what they liked, what they were able to do, and how much instruction and career counseling they were receiving. Follow-up research 1 year, 5 years, and 11 years after their graduation revealed that schools had frustrated some of the best students. John Flanagan then framed systems for individualized study plans. The Critical Incident technique has since then been used in management—more specifically human resource management, for example, to establish performance requirements for positions; customer service; education; health; information systems development; operation of complex devices; surgery; and industry.

Of Critical Incidents, Their Analysis ...

A critical incident² need not be spectacular: it suffices that it should hold significance. As such, at the individual level, it can be events or circumstances that made one stop and think, perhaps revisit one's assumptions, or impacted one's personal and professional learning. At the collective level, it can be a systemic problem from organizational maladaptation, or an issue arising from differences among stakeholders. In short, an incident may be defined as critical when the action(s) taken contributed to an effective or an ineffective outcome. At heart, all incidents pertain to matters such as culture, knowledge, competence, relationships, beliefs, emotions, communication, or treatment.

Relaxing eligibility criteria lets stakeholders select incidents for a range of purposes (by and large categorized under planning and exploration, evaluation, and empowerment and animation). This is assuredly what John Flanagan must have intended: in his seminal

To expect the unexpected shows a thoroughly modern intellect.

—Oscar Wilde

article,³ written 10 years after the Second World War, he described the Critical Incident technique as "a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles." To wit, the technique seeks, largely through qualitative processes of exploration and investigation, to identify actions associated with effective or acceptable performance in defined situations.⁴ Hence, the analysis of a critical incident describes the setting in which an incident occurred, the behavior (including the attitudes, emotions, skills, knowledge, and resources) of the people involved, and the outcome or result of the behavior. The analysis brings cognitive, affective, and behavioral dimensions together, touching both the content of what is learned and the process of learning.

... and the Outline of a Process to Map Them⁵

When analyzing a critical incident, reflective individuals ask: Why did I view the original situation in that way? What assumptions about it did I make? How else could I have interpreted it? What other action(s) might I have taken that could have been more helpful? What will I do if I am faced again with a similar situation?

Organizations find this much more difficult to do, the degree of complication depending on their type, e.g., entrepreneurial, machine, diversified, professional, innovative, missionary, or political. Fortunately, the Critical Incident technique structures such queries with a versatile, open-ended method of data collection for improving organizational performance that can be applied effectively in varied situations. This makes it a much-awaited addition to organizational tool kits. (David Kolb's learning cycle,⁶ which emerged later, is reminiscent of it.) Additionally, by managing the issue internally, organizations are given the opportunity to collaboratively resolve problems without all-too-frequent reliance on consultants.⁷

² An incident is an occurrence or condition, contingent on or related to something else, that interrupts normal procedure.

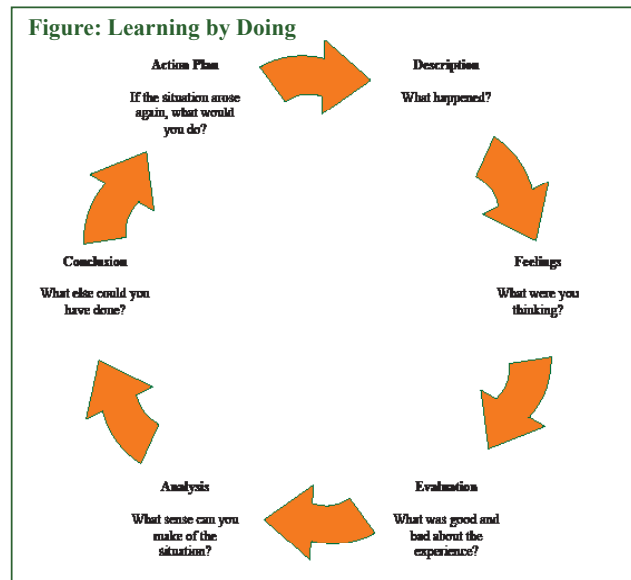
³ John Flanagan. 1954. The Critical Incident Technique. *Psychological Bulletin*. Vol. 51, No. 4, pp. 327–358.

⁴ Critical incidents can thereby be used to identify the learning needs of personnel.

⁵ The versatility of the Critical Incident technique is demonstrated by the variety of its possible applications across the sectors, professions, and disciplines in which it has found favor. They include, for instance, observing effective or ineffective ways of doing something; identifying conducive or limiting factors; collecting behavioral descriptions of problems; and determining functional characteristics that are critical to certain aspects of a situation. Hence, the technique should be applied through flexible steps: it cannot follow a single, rigid set of rules.

⁶ David Kolb. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall.

⁷ The rationale for not relying too much on consulting services is well argued in Geoff Parcell and Chris Collison. 2009. *No More Consultants: We Know More Than We Think*. John Wiley & Sons. Without straying from the topic of these *Knowledge Solutions*, in keeping with their focus on reflective practice, it is instructive to ponder the five key questions Geoff Parcell and Chris Collison invite an organization to pose: Can we identify the issue? Do we know our internal capability? Does anyone do this well internally? Do we know who is good at it externally? Having identified who does it well, are they available to help us, either by sharing what they know or by implementing it? Their book then marks out a workable framework for an organization to ascertain when and why it should rely on the expertise and experience of its own people. (Regrettably, the authors make no reference to the Critical Incident technique.)



Source: Graham Gibbs. 1988. *Learning by Doing: A Guide to Teaching and Learning Methods*. Oxford.

Under the technique, critical incidents are generated by asking individuals, usually subject-matter experts, to describe through interviews⁸ incidents they (or someone else) handled well or poorly. (Where the critical incident is a spectacular success, the Critical Incident technique complements the process of appreciative inquiry. However, organizations tend to ignore great achievements, in a technical sense; this means that the technique's value is more commonly seen to lie in helping them fix problems and eradicate causes of failure.)

To kick off a Critical Incident technique intervention, it is essential to agree on whether the issue meets established critical incident criteria and then prepare a clear, concise statement of the purpose of the intervention.⁹ (Obviously, the amplitude of consequences should define criticality.) If the issue meets the criteria, can the agency secure stakeholder support and capacities for an intervention? Next, one must understand what core questions need to be addressed,¹⁰ especially as this helps prioritize the intervention and its expected impact against other priorities. Specifically,

- What were the events or circumstances that led to the critical incident?
- What were the behaviors of the agents that made these (events or circumstances) a critical incident?
- What were the outcomes of the critical incident?
- What are the possible future outcomes if behaviors remain unchanged?
- What are the possible future outcomes if behaviors change based on lessons learned?

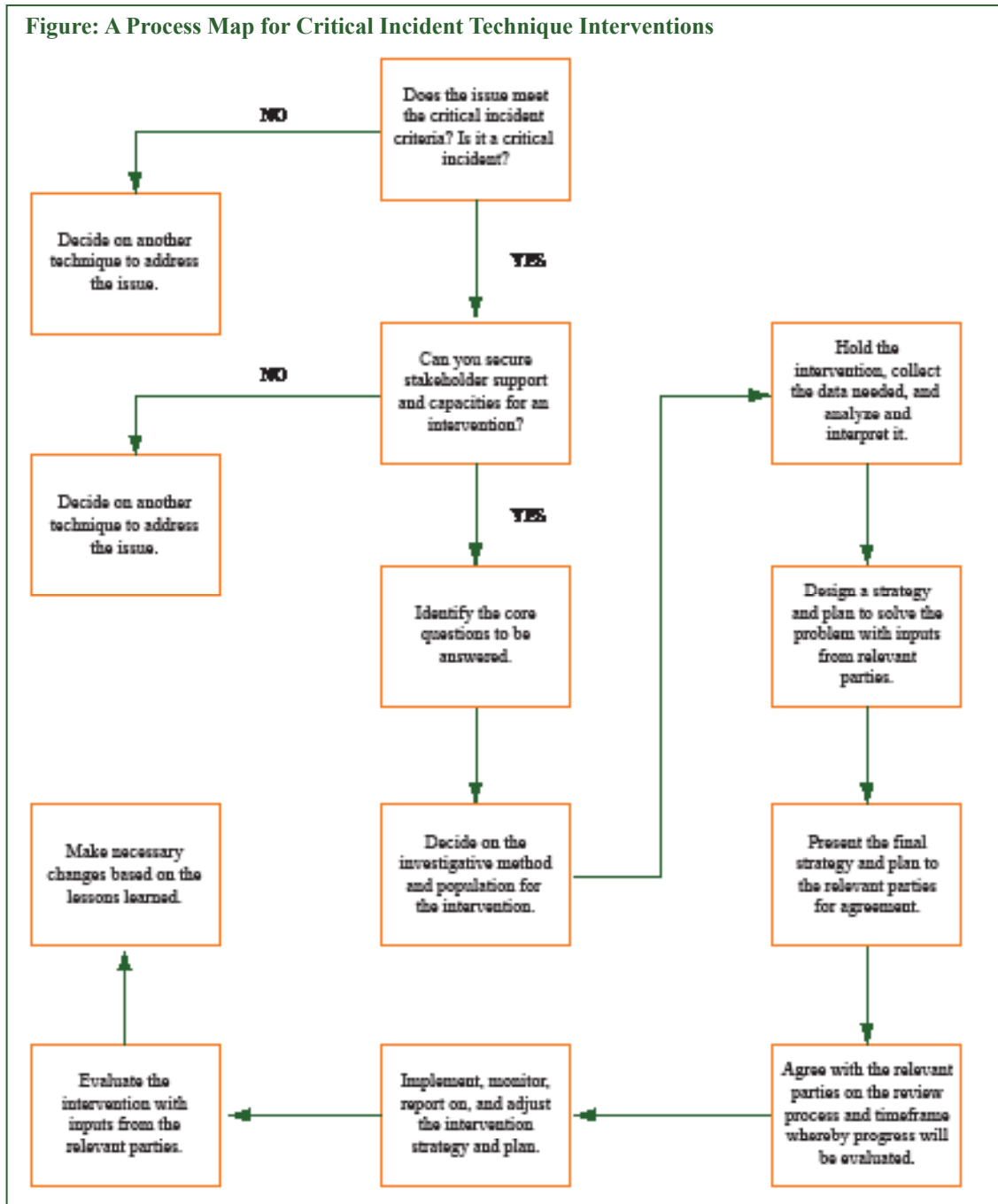
One should then decide on the investigative method and the population to be tapped in the context of the intervention. The subsequent steps rest on more familiar tools, methods, and approaches for project management, entailing as they do actual collection and analysis of data; the design and review of strategies and plans for problem solving; implementation and monitoring; evaluation; and requisite adjustments.¹¹

⁸ To clarify, information about critical incidents in an organization can be collected through numerous vehicles other than interviews. They include focus groups, surveys, performance records, and work diaries. In focus groups, a facilitator leads a small number of people to identify and describe in structured discussion specific examples of, say, past performance. Surveys can be administered in print or online. (The individuals completing the surveys may be assembled in a room, or may complete the survey on their own.) Examination of performance records might, for example, focus on leadership and personnel satisfaction. Another method of investigation is work diaries that can be drawn to record incidents of successes or failures as they occur during the working day or working week.

⁹ This may require that guidelines for selecting, observing, interpreting, and classifying critical incidents be drawn beforehand.

¹⁰ People are more likely to give candid accounts of their experiences if they are assured of anonymity. This is especially important if they belong to communities that share strong bonds.

¹¹ For a methodological guide on key steps of the Critical Incident technique, see Raphaela Hettlage and Marc Steinlin. 2006. *The Critical Incident Technique in Knowledge Management-Related Contexts*. Swiss Association for International Cooperation. Available: www.i-p-k.ch/files/CriticalIncidentTechnique_in_KM.pdf



Source: Adapted from Paul Davis. 2006. Critical Incident Technique: A Learning Intervention for Organizational Problem Solving. *Development and Learning in Organizations*. Vol. 20, No. 2, pp. 13–16.

Advantages and Limitations

The Critical Incident technique shows promise, but is still establishing itself as a qualitative research tool. Since it focuses on behavior, it can be leveraged in numerous events or circumstances as long as the inherent bias of retrospective judgment is understood.

If you do not expect the unexpected, you will not find it; for it is hard to be sought out, and difficult.

—Heraclitus

Some advantages are the following:

- The Critical Incident technique helps identify and analyze rare events or circumstances that might not be picked up by methods of investigation dealing with everyday episodes. Its focus on critical issues can bring major benefits.
- The Critical Incident technique maximizes the positive and minimizes the negative attributes of anecdotes, turning complex experiences into rich data and information. Most people enjoy telling stories: they like to be listened to and are glad that their experiences are thought important. Especially when data and information are collected anonymously, investigators can obtain deep information about the emotions, feelings, and actions of individuals, and find new meaning. (As you would expect, the technique is therefore especially useful where hazard, security, or privacy confuse a situation.)
- Critical incidents provide dramatic demonstrations of the impact of behavior, whose cause and severity may not have been known. With real-life examples, they tell the human story behind action(s) and their outcomes and spark interest in associated reports and presentations.
- Critical incidents help gauge abstract constructs such as motivation through their demonstration in reported behavior. (These are more difficult to assess with other tools, methods, and approaches.)
- Critical incidents provide in-depth information at a much lower cost and with much greater ease than observation.

Some limitations are that the following:

- Critical incidents cast a personal perspective on organizational issues. (Reports of behavior are filtered through the lens of individual perceptions, memory, honesty, and bias: for that reason, they may not be entirely accurate.) Therefore, the Critical Incident technique may need to be combined with other methods of data collection, analysis, and interpretation before an organization can obtain a comprehensive understanding of a situation.
- Similarly, it cannot be assumed that people can and will provide incidents that are critical to success in their particular jobs—hence the need to select critical incidents carefully—nor that qualitative analysis alone is enough to clearly identify the aptitudes, proficiencies, and temperaments underlying success or failure.
- Some applications of the Critical Incident technique take time: investigation of data and information can be laborious.
- It may not be easy to convince people to share critical incidents if the investigative approach requires them to write their own stories.

Further Reading

ADB. 2008a. *Conducting After-Action Reviews and Retrospects*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/conducting-after-action-reviews.pdf

———. 2008b. *Storytelling*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/storytelling.pdf

———. 2008c. *Action Learning*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/action-learning.pdf

———. 2008d. *Appreciative Inquiry*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/appreciative-inquiry.pdf

———. 2009. *The Five Whys Technique*. Manila. Available: www.adb.org/documents/information/knowledge-solutions/the-five-whys-technique.pdf

Raphaela Hettlage and Marc Steinlin. 2006. *The Critical Incident Technique in Knowledge Management-Related Contexts*. Swiss Association for International Cooperation. Available: www.i-p-k.ch/files/CriticalIncidentTechnique_in_KM.pdf

For further information

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Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

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