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Rapid Reconnaissance: Seeking Immediate Results

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ABSTRACT

This article aims to reorient evaluators to a methodology that has perhaps been overlooked in recent years but whose methods are likely to be used, at least in part. Rapid reconnaissance emerged in sociological and rural research in the 1960s as a fast data-gathering and process evaluation tool that relies on multidisciplinary teams and information sharing between evaluators and professionals. Situated within developmental evaluation, rapid reconnaissance is often seen as a primer or first data-gathering exercise to inform future research direction or focus. Three main tools used for conducting rapid reconnaissance are explored in this article: proxies, sondeo, and rapid assessment procedures. Proxies require multidisciplinary evaluators to have some experience in the area under investigation to know when data saturation has been reached. Sondeos help orient evaluators and researchers to the culture under investigation. Three major techniques make up rapid assessment procedures, but all rely on a holistic view in which communication is key. Recognizing that evaluators work in many settings, and not necessarily only in the settings where rapid reconnaissance first emerged, this article also explores rapid reconnaissance in the organizational and higher education sectors. Finally, the authors describe how they have used rapid reconnaissance as evaluators at the University of Southern Queensland in the context of course enhancement conversations.

1 | Introduction

This article aims to outline the value of rapid reconnaissance as an evaluation methodology and illustrate how rapid reconnaissance can be applied as a holistic and inductive reasoning tool to strengthen an evaluation design. The term methodology is used in this article to mean the overarching research conceptualization to which various data collecting methods subscribe (Avison and Fitzgerald 1999; Halweh et al. 2008). From the outset, it is important to note that rapid reconnaissance shares similar names to other "rapid" methods, such as situational assessment, but they are not the same. Situational assessment has progressed in the medical and health fields to support health practitioners facing rapidly evolving medical and associated social crises (such as the COVID-19 pandemic). Close inspection of this indicates a stepped plan for following good research practices designed for practitioners who need to make rapid health-related strategic decisions "on the ground." They are often used by those who might need to make decisions quickly but do not have time or the expertise to conduct thorough research studies and are, therefore, not applicable in the social science, education, and business settings described in this article. For example, the Middlesex-London Health Unit (2020) described situational assessment as a series of steps to gather population health statistics, community assessment information, gray and/or published literature to make informed decisions about public health issues. Although there are similarities to the fast data-gathering exercise this article describes, the medical and public health uses are not explored in detail. This article provides insight into when and where to adopt traditional rapid reconnaissance methodology and highlights how little has changed in the 60 years since its conception.

1.1 | Historical Applications

Although rapid reconnaissance sounds new, it has been an evaluation methodology used in social and agricultural sciences since the 1960s. It emerged from practice in the United States

when conducting fieldwork in Africa, Latin America, and Asia as well as in agricultural settings (Campbell and Stanley 1963; Webb et al. 1966). Although originally formed in these settings and now given many other labels, this article will show how rapid reconnaissance has evolved and that the underlying methodology is more relevant than ever before.

Our current fast-paced world demands that decisions about complex and evolving situations be made quickly. Combined with access to vast amounts of data, there is a risk of making decisions quickly when they are based on incomplete or inaccurate information. While rigorous research and formal data analysis tend to be the antidote for this, the time-consuming and costly process ensures the decision may come too late. Rapid reconnaissance is a qualitative research methodology that relies on a multidisciplinary team to conduct simultaneous research with "local people" to produce results faster (Beebe 1995). Thus, rapid reconnaissance has evolved over time and has been used in a wide variety of applications, such as supporting humanitarian emergency responses (Bartsch and Belgacem 2004), designing education programs (Kirsch 1995; Leonard et al. 2016), and agricultural marketing (Holtzman 1993; Menegay 1989) in government and the private sector to identify needs, make decisions, build knowledge, and to create or evaluate policy (Holtzman 1986).

Other benefits of this methodology are its usefulness in responding to people's concerns, evaluating services, diagnosing problems, and encouraging participation between "clients" and evaluation "professionals" (Butler 1995). Rapid reconnaissance provides a broad and preliminary overview of a culture, program, strategy, or organization—the operation and performance of its tactical systems or components—and is designed to identify system constraints as well as opportunities (Holtzman 1986)

Rapid reconnaissance is a useful tool to learn policy-based information quickly, identify system dynamics, understand links, and overall problems, design longer-term research programs, identify potential interventions, or inspire policy reform. When considering rapid reconnaissance from a strategic viewpoint, it can identify the success or failure of tactical plans quickly. However, while it provides many data points, it should not be the basis for generating definitive answers, only for providing tentative and preliminary ideas that would benefit further investigation. Rapid reconnaissance relies on the researchers "experience and imagination" (Van Sant 1989) and therefore runs the risk of bias and can be of varying quality if not done right. This limitation should be considered by researchers when deciding how it contributes to the research design and practice of a project or policy.

1.2 | An Emerging Application of Rapid Reconnaissance Within Development Evaluation

While rapid reconnaissance is a method in and of itself, more recently, it has been described as the first data-gathering exercise in developmental evaluation (Patton 2011). Developmental evaluation is an evaluation theory designed to measure the efficacy of innovations and/or organizations that are in a continuous state of change (Leonard et al. 2016; Patton 2011). In 2002, Patton first described rapid reconnaissance as a farming systems approach to international development in which interdisciplinary teams conduct fieldwork. This fieldwork mostly consisted of informal interviews with the professionals in the field who are considered in the historical literature to be "indigenous" to the environment. These interviews aim to gain "indigenous technical knowledge" (Chambers 1981). However, as developmental evaluation has evolved, Patton (2011) has described uses for rapid reconnaissance outside of rural and sociological evaluation.

Academic literature has discussed the importance of rapid reconnaissance use in organizational diagnosis for at least 40 years (Honadle 1982). Honadle's (1982) statement that "for organizational analysis to be useful, it must penetrate the bureaucratic ether and identify actual human behaviour" (p. 638) highlights the interplay of organizational agendas that cause and maintain individual behavior. Honadle (and others) have recognized that to understand an organization and its structures, simply measuring job satisfaction and efficiency distributions does not provide a clear picture of the organization or its employees.

1.2.1 | Higher Education Evaluation

A search of the academic literature found that rapid reconnaissance has only been used once before in an Australian tertiary educational setting (Leonard et al. 2016). Additionally, there is little reported use of rapid reconnaissance in higher education settings internationally. The reasons for this are unclear, as developmental evaluation has been applied to the higher education sector in other countries previously (Bergen et al. 2012; Huber et al. 2013; Lam 2016; Liao 2015). As rapid reconnaissance is seen as one of the first steps in developmental evaluation (Patton 2011), it is expected that any research using developmental evaluation will describe its use. However, closer inspection of these previous evaluations shows that while rapid reconnaissance methodology is, in fact, described, the terminology is not used. Instead, such descriptions as "journey-mapping" (Lam 2016), "action research reconnaissance" (Maxwell and Choeden 2012), "field ethnographies" (Crouch and Pearce 2013), and "needs assessment" (Lam 2016) were used. In the case of Bergen et al.'s (2012) developmental evaluation of virtual learning environments, they applied a program logic model in what is traditionally the rapid reconnaissance step instead. Similar alterations were shown, with a semi-structured interview replacing the rapid reconnaissance phase in other research (Huber and An 2012; Huber et al. 2013). These clearly show that evaluators use and adapt rapid reconnaissance tools to their work already. However, using these tools without the important data-gathering step of field research (i.e., observations, semi-structured interviews) to inform the broader environmental context could create evaluation outcomes that fall short.

In Bangladesh, however, the higher education sector underwent a program and planning developmental evaluation and utilized rapid reconnaissance methodology as it has been traditionally described (Ahmed et al. 2005). Even in this research, the term rapid reconnaissance was used interchangeably with "mapping study." The evidence from overseas shows that the phrase "rapid reconnaissance" seems to have been subsumed by other terms and methodologies, even though Patton, who initially defined developmental evaluation, continues to describe

its use. Developmental evaluation typically engages in rapid reconnaissance to (a) quickly gather baseline data and then (b) deploy tools to support growth and change while (c) allowing for revised and emergent modelling to occur (Patton 2011).

Within Developmental Evaluation, rapid reconnaissance is framed as providing critical baseline feedback that offers a chance to learn new ideas and give rise to opportunities (Patton 2011). Various data can be gathered quickly and intensely and used to give feedback to key stakeholders (Patton 2011). Rapid reconnaissance, including its use in developmental evaluation, provides opportunities for findings to inform new designs and processes that are changing and growing as evaluation continues.

Gamble (2008) formed an evaluation primer for conducting developmental evaluation. To conduct the initial rapid reconnaissance, Gamble recommended using a simple and common reflective framework (Rolfe et al. 2001) to ask: What? So What? Now What? To first gather an understanding of the diverse factors and actions that can be taken, an evaluator should ask:

1. **"What—**do we see? What does the data tell us? What are the indicators of change or stability? What cues can we capture to see changing patterns as they emerge?
2. **So What**—sense can we make of this data? So, what does it mean to us now and in the future? So what effects are changes likely to have on the organization?
3. **Now What**—are our options? Now what are our resources? Now what, when, and how can we act to optimize opportunities now and in the future?" (Gamble 2008, 47).

While this reflexive framework can help situation the data gathering limits, outputs, and goals, a variety of tools are used in practice.

1.3 | Rapid Reconnaissance Tools

While there are variations described in the literature on "how to" conduct rapid reconnaissance, there are similarities seen in all descriptions. The five major themes found are as follows:

1. There should be *at least two people* conducting the research or evaluation;
2. *People who are local* or who work in the area under investigation should participate;
3. *Multiple disciplines* should be represented through the evaluation and participant groups;
4. An *evaluation professional* who possesses high "multidisciplinary tolerance" (Hildebrand 1981, 293), who has experience in the field, and who can ensure everyone contributes should lead; and
5. The methodology does not provide an answer in itself, it is the *first step in gaining sufficient information* about a situation to design and implement additional activities or research.

Further detail is provided in the following descriptions of the tools employed by rapid reconnaissance evaluators. These tools, in order of presentation, are: proxy measures, the sondeo, and rapid assessment procedures.

1.3.1 | Proxy Measures

As stated, rapid reconnaissance began in the social sciences and in agricultural settings where researchers needed to quickly and efficiently understand the complex interplay of culture, relationships, local customs, and context to assess capabilities and areas for improvement (Butler 1995; Honadle 1982). To integrate quickly and avoid spending a long time in the field, researchers developed the use of "proxies" (Honadle 1982) as contextual measures of the thing they were investigating. By definition, a proxy is an unobtrusive outcome measure used to represent a difficult-to-measure goal (Honadle 1982; Van Sant 1989). For example, counting the number of tin roofs in a village was considered an easy and unobtrusive proxy to measure wealth; and counting the number of baby prams on a busy street corner was considered a crudely accurate proxy of relative birth rate by early social scientists (see Honadle 1982, for discussion).

By the same logic, proxy measures can be developed in business and education settings. Organizational rapid reconnaissance works to overcome the limits imposed by more orthodox data collection methods. To do this, it must account for the formal structures (e.g., organizational charts and job descriptions) while focusing on the informal factors that make up an organization (such as the control of resources and determination of incentives) (Honadle 1982). This involves creative approaches to collecting important sources of information. Like in rapid rural and sociological evaluations, proxies can be developed for organizational evaluations. For example, interdepartmental cooperation can be measured by not only who attends general meetings but also whether it is a department head or their substitute who attends (Honadle 1982). Measuring proxies such as these is a rapid proxy measure to evaluate overall strategy. However, using and applying proxies in an organizational environment requires experience of the organization to cross-check and validate findings adequately.

Small sample sizes relative to the overall population can produce results with high confidence levels in qualitative research (Hennink and Kaiser 2022). However, evaluators should be aware of the context in which empirical evidence suggests a small sample size is appropriate. Namely, in homogeneous populations with focused research goals and where data is gathered in interviews or focus groups (Hennink and Kaiser 2022).

Honadle (1982) recommends considering two important indicators when employing proxies to rapidly appraise a situation or problem: experience and context. For a proxy to be effective, it needs to be considered in the context of the time, geographic location, and political landscape, and be scientifically accurate (Head 2008; Honadle 1982; Van Sant 1989). In the example above, tin roofs were an accurate proxy for wealth. However, if a dignitary was due to visit, the villagers might pool their wealth to erect more tin roofs to appear prosperous. In this case, the village's recent history is an important consideration when using the proxy of counting tin roofs to measure wealth. Therefore, experience in the culture under investigation is important.

While rapid reconnaissance benefits from a multidisciplinary team, it still requires some team members who know the organization well—not just the formal structural factors, but the informal make-up—how things actually happen and work. Chambers (1981) argues that using proxies requires the use of two principles that apply in most qualitative evaluations and which are borne out of grounded theory (Glaser and Strauss 1999): (1) optimal ignorance: which refers to the ability to know when enough information has been collected and (2) proportionate accuracy: which refers to understanding that while all data have degrees of accuracy, the orders of magnitude and change need to be considered in context. Van Sant (1989) summarizes these principles: "It requires experience and imagination… to know what is not worth knowing, and self-discipline and courage to abstain from trying to find it out" (p. 265). For evaluators, this means that the data collected has reached saturation with enough information for sense-making to take place.

1.3.2 | Sondeo

Sondeo is a rapid assessment tool developed by anthropologists working in rural communities worldwide to build an understanding of a culture and its requirements (Butler 1995; Hildebrand 1981). Its primary purpose is to acquaint the researchers with the area or culture they will be working in (Hildebrand 1981). This method of rapid reconnaissance, which has its origins in Spanish-speaking cultures, is described as follows:

> "Sondeo" means "to sound out." It is a rapid reconnaissance or rapid appraisal method of learning about local people's situations, experiences, problems, and perspectives … directly from the people themselves. It generates insights and information rarely obtained in a formal survey in a relatively short period of time. A sondeo will give you a good 'sense' of the situation. (Butler 1995, 1)

As a rapid reconnaissance methodology, the sondeo is a holistic orientation that usually involves a combination of methods to gather information, including qualitative data, and is characterized by rapid data collection. It requires a multidisciplinary team approach with communication between the "clients" and "professionals" to accurately gather the requested information (e.g., describing an existing situation, identifying homogeneous systems, identifying problems, constraints, costs, benefits, and/or solutions) or as a background for developing more detailed work.

Butler's (1995) sondeo rapid reconnaissance tool provides an excellent description of how to engage in this methodology; however, as it was developed for rural and sociological contexts, minor revisions have been made so that only the relevant steps and considerations are included. For example, an ethnographic interview would be the final step in Butler's methodology; however, the appropriateness of the interview step and who to interview will vary widely across contexts. The following provides the adapted steps involved in this rapid reconnaissance methodology as it would be applied to an organizational setting (Butler 1995):

1. **Identify leadership and responsibility**—include leaders from the research and academic teams.
2. **Determine goals and objectives**—what are the expected outcomes, and how will the findings be used?
3. **Determine resources and constraints**—what data sources and skills are available and what constraints might hinder implementation.
4. **Compose the implementation team**—multidisciplinary team make up with all interested groups included.
5. **Team orientation**—familiarize the team with methodology, focus topics, and interview process.
6. **Interview**—informal, based on anthropology work to build trust and allow for a group understanding and cohesive conclusions.

1.3.3 | Rapid Assessment Procedures

Founded in developmental evaluation, rapid assessment procedures provide social science knowledge to build developmental interventions (Cernea 1992; Pelto and Pelto 1978). Recognizing the strengths of using "Indigenous" perspectives of people who work and/or live in the field, rapid assessment procedures aim to "put people first" (Cernea 1992, 13). This simultaneously means creating a team of evaluators who conduct fieldwork as both observers and participants, similar to fieldwork anthropology methods (Okely 2012). Importantly, the differences lie in the speed of data collection and the inclusion of multiple perspectives. The long list of techniques for data generation and analysis in rapid assessment procedures includes the researcher's participation, semi-structured interviews, mapping, diagrams, key informant selection, and so forth (Beebe 2014; Cernea 1992).

These techniques are structured by the three basic concepts as defined by Beebe (1995) that make up the rapid assessment procedure (see Table 1). As can be seen, rapid assessment procedures share many similarities with inductive reasoning, where researchers might have fragmented or limited knowledge of the phenomena being investigated (Elo and Kyngäs 2008). Data gathered in the moment from various methods and without prior assumptions are assessed from multiple perspectives to determine baseline knowledge for developmental and/or more detailed evaluations.

1.4 | Rapid Reconnaissance in Practice

Rapid reconnaissance, territory mapping, and emergent modelling steps (Patton 2011) have previously been carried out in an Australian higher education setting in designing a new teacher education course (Leonard et al. 2016). The data provided by the rapid reconnaissance groups were used by the research design team to formulate the problems that came to light (Leonard et al. 2016). By first understanding the problems in the current curriculum design, the research team could then generate research questions with a greater degree of confidence and engage in emergent modelling that would help to support students develop more usable general knowledge and skills (Leonard et al. 2016).

TABLE 1 | Rapid assessment procedures.

Basic concept	Examples of tools and techniques
Systems Perspective—assumes the system and all its parts cannot be identified in advance due to its variability, and the researcher's initial limited understanding of "indigenous knowledge" held by those in the field.	• Semi-structured interviews • Short guidelines • Purposeful sampling • Group interviews
Triangulation—systematic combination of individual observations from different disciplines and perspectives. Assumes there is no "best" way and there is no way to determine outcomes in advance.	• Small interdisciplinary teams • Local participation • Combines interviews, preliminary research, and direct observation
Iterative process—in which researchers start with pre-collected data and then progressively learn from interviewees and each other. Allows for the emergence of data that might not be expected.	• Structured research, which includes team interaction

Source: Adapted from Beebe (1995).

Gamble's (2008) reflective framework is displayed in this research with Leonard et al. (2016) gathering data (What?), formulating problems and questions (So What?), and designing a radically new teacher education course from their evidence (Now What?). Showing how this methodology can be adapted and applied in varying higher education contexts, the authors share a case example from their university.

1.4.1 | Rapid Reconnaissance in Practice: Course Enhancement Conversations

Higher education institutions must undergo continual evaluation processes to meet regulatory requirements, student needs, and business modelling (Alderman 2022). To transform strategic curriculum decision-making, the Evaluation Methodologies team in the Academic Transformation Portfolio at the University of Southern Queensland, a regional university in Australia, sought to utilize rapid evaluation methods.

At the University of Southern Queensland, following an external requirement to improve the use of data for strategic curriculum decision-making, in 2020, Professor Lyn Alderman designed an intervention titled "Course Enhancement Conversations" (Forbes et al. 2022). The Evaluation Methodologies team is responsible for facilitating these conversations each year; therefore, the case example outlined below is based on the evaluation practice of the authors. Course Enhancement Conversations at the University of Southern Queensland are described at length in Forbes et al. (2022).

In brief, the conversations are a quality assurance activity (intervention) co-facilitated by the Evaluation Methodologies team alongside Associate Heads of Learning, Teaching, and Student Success within each School. Course teaching team members also attend. A Course Enhancement Conversation occurs if the mid-semester student feedback survey mean score is 3.6 or below on a 5-point Likert scale with at least five responses. Within a learning and teaching ecosystem, this mean data point is considered a sentinel indicator that warrants further investigation.

In the conversation context, a multidisciplinary team is assembled, unique to each course under investigation. The multidisciplinary team includes:

1. Course team members who have specific course-level knowledge and context that other participants will not have;
2. Associate Heads (Learning, Teaching, and Student Success) who are familiar with broader trends across the school that might impact individual courses; and
3. Evaluation Methodologies team representatives who bring a deep understanding of the data available and an unbiased and generalized view to the conversations, but lack a nuanced understanding of the contextual factors.

The combined knowledge of the multidisciplinary participants adds several layers of context to what is essentially a proxy mean score—the sentinel indicator. This allows the evaluation manager to guide all participants toward an agreement over what the initial sentinel indicator means, if anything at all. Furthermore, each conversation only takes 30 min and, in that sense, is an excellent representation of rapid reconnaissance in practice. The Course Enhancement Conversation begins with the responsible course academic providing their contextual situation for current impact factors for the delivery of the course. This is followed by unpacking the Course Level Report and discussing key data points within the 450 lines of evidence provided. As a group, the participants agree whether the sentinel indicator was a true or false flag. Where the result is a true flag, then the responsible academic creates an action plan to improve the experience of the current and future student cohorts. Where the flag is considered by this team to be false, no further investigation is required, and the responsible academic continues to conduct their usual quality assurance activities at the end of a teaching period.

1.4.2 | Analysis of the Course Enhancement Conversations Case Example

The Course Enhancement Conversations were designed using the five major themes described in the literature:

1. *More than two people*, but fewer than six, are invited to the conversations to contribute their knowledge. This knowledge might be of the course and students, or of the broader university context, such as program changes and data trends.
2. As described in the case example, those who are invited have relevant *local knowledge* to provide data that helps determine if the sentinel indicator is valid or not (i.e., Course coordinator, the relevant School's Associate Head (Learning, Teaching, and Student Success), and at least two members of the Evaluation Methodologies team).
3. The Evaluation Methodologies team itself has deliberately been designed to be *multidisciplinary*, and so the members who attend provide different perspectives to those of the course Coordinator and Associate Head (Learning, Teaching, and Student Success). Even within individual Schools, a variety of disciplines are represented. For example, a conversation for a course within the School of Business may include participants from the disciplines of accounting, information technology, political science, and psychology.
4. The Manager of Evaluation Methodologies has run the Course Enhancement Conversations for the past 4 years as the *evaluation professional*.
5. The data gathered from the conversations provides qualitative data context to the quantitative findings. It is considered an important *first data gathering step* towards larger considerations, such as course or program changes.

1.4.3 | Utilization of Rapid Reconnaissance Tools in Course Enhancement Conversations

1.4.3.1 | Proxies. The sentinel indicator is the initial proxy to trigger a Course Enhancement Conversation. This proxy signals through student satisfaction scores that there may be quality concerns occurring within the course. During the conversations, considerations of the formal data sources and the informal contextual insights provide a proxy for how the course is being experienced by the students and teaching team, as well as how it fits within the program and School. The proxy indicators of experience and context are enacted in this setting to allow participants to consider what is actually happening against the formal structural factors. Sense-making is led by the course and School team members and moderated by the Evaluation Methodologies team members, deciding on the degrees of accuracy and limits of data collection. In this, Chambers (1981) principles are enacted—optimal ignorance and proportionate accuracy.

1.4.3.2 | Sondeo. The Course Enhancement Conversation protocol is further supported by the sondeo method. The sondeo steps shown above were consulted to determine:

1. who should lead the conversations and those responsible for any outcomes,
2. what the goals and objectives of the Course Enhancement Conversations were,
3. what data was required and how it could be presented,
4. that the intervention teams be multidisciplinary,
5. that all team members are oriented to the purpose of the conversations and expected outcomes, and
6. that sondeo interview techniques would provide the informal structure in which the conversations occur.

1.4.3.3 | Rapid Assessment Procedures. Rapid assessment procedures further support the methodological assumptions underlying the Course Enhancement Conversations. Rapid reconnaissance methodology starts from a place of not knowing. This systems perspective allows all participants to approach the conversations without any preconceived notions of the findings. It is only through this triangulation of all participants' knowledge and data sources that an indication of the true findings can be made clear.

1.4.4 | Validation of the Course Enhancement Conversations

It is worth noting that, arising from a query from an academic government committee member, the Evaluation Methodologies team conducted an analysis of over 400 conversations to determine whether the sentinel indicator was set correctly and was a reasonable initial flag. It was found that in 94% of the Course Enhancement Conversations held to date, the flag was considered by the multidisciplinary team to be true, with only 6% found to be false. This analysis reassured the academic governance committee that the Course Enhancement Conversations were a valid activity (intervention), and approval was granted to continue into the future. An independent external impact evaluation in early 2024 further supported these conversations to continue (Petersen 2024).

1.5 | Summary

The current literature shows the progress of rapid reconnaissance from a complete rural assessment tool to a beginning step in developmental evaluation. While rapid reconnaissance can produce more questions than it answers, this is seen as a positive benefit to ensuring all the "problems" are brought to light and addressed. This method allows flexibility in gathering data through the use of proxies, as well as research, political, and practical knowledge, and requires a multidisciplinary team approach. As illustrated throughout this article, rapid reconnaissance is both holistic and inductive in its reasoning and offers evaluators an important tool to make strategic decisions in a rapid time frame. The ultimate goal is to strengthen the evaluation design through the application of rapid reconnaissance as a rigorous and replicable methodology.

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