



Systems Analysis from a Qualitative Perspective: An Emerging Skills Set For Information Systems Professionals

Steven R. Terrell, Ph.D.

Nova Southeastern University, Ft. Lauderdale, FL

Michael F. Lohle, Ph.D

Trefz School of Business

University of Bridgeport, Bridgeport, CT

Yair Levy, Ph.D.

Nova Southeastern University, Ft. Lauderdale, FL

Abstract

“Effective systems analysis is at the core of the design, development and operation of a modern information system.

As part of their analysis and design work, information technology (IT) professionals are called upon to interview clients, observe daily operations and interpret and evaluate existing or proposed solutions.

These practitioners must understand and situate themselves in the context of multiple stakeholder organizations and remain cognizant of organizational goals.

Unfortunately many of these interaction skills, critical to effective application development and delivery, are not taught in a university setting. Fortunately, many of these needed skills are the focus of effective qualitative research.”

(Terrell, Lohle & Levy, 2014)

Main Arguments

“After extensive personal experience with systems development life cycles designed to foster collaboration, in conjunction with interview data collected during the study, the authors concluded that aggressive delivery schedules and limited resources necessitate that development teams focus on assigned deliverables.

Unfortunately, this undermines team member collaboration, knowledge of how their efforts fit into the overall solution and an understanding of how their product will be received. Adverse impacts include lost time from missed or ineffective communication between team members, ineffective handoffs between functions, poor expectation management, missed or misunderstood requirements, late delivery and inflated budgets.

The professionals interviewed for this paper affirmed the application of specific, focused qualitative methods tools (e.g., interviewing skills, the ability to effectively conduct, synthesize and analyze qualitative data, the effective use of focus groups, etc.) in such situations should infuse IT teams with renewed focus, accuracy and purpose.”

“The overarching concerns of the executives interviewed were best summarized by one manager who described the costly and time-consuming need for additional analysis, design and development following the unsuccessful launch of a municipal information system. The interviewee felt that a clear lack of communication between IT personnel and the systems end-users led to critical problems with the initial implementation of the new system. As he noted, the effective application of many of the communication and data analysis skills learned in the qualitative research class would have likely helped IT personnel during the design of the system, and ultimately avoid problems experienced during the initial implementation.”

(Terrell, Lohle & Levy, 2014)

Conclusion

“Courses teaching qualitative research methods are designed to prepare graduate students to conduct formal research.

The information systems professionals interviewed for this paper felt this approach is limiting because qualitative training can become an important tool for IT delivery that would benefit a larger audience, and should be expanded and presented as such.

The professionals interviewed embraced these methods and concluded they provide a foundation for critical thinking and enhanced synthesis and application of qualitative data. Their testimonials asserted qualitative methods provide the deep knowledge and understanding necessary to avoid pitfalls and ensure observations are not accepted at “face value” without first obtaining an additional perspective.

In today’s IT environment such perspectives are often lost, resulting in a larger than expected financial and human resource investment. This paper’s findings indicate a significant opportunity to leverage qualitative research methods for enhanced IT delivery.”

(Terrell, Lohle & Levy, 2014)

Key Questions

“This paper presents the results of interviews with fifteen senior information systems personnel who completed a graduate level course in qualitative research. The results indicate a strong agreement that this type of coursework should be included as part of an information systems curriculum, with specific examples of how these skills can be used, as well as suggestions for future use in a corporate setting.”

(Terrell, Lohle & Levy, 2014)

References

Terrell, S. R., Lohle, M.F. & Levy, Y. (2014). Systems analysis from a qualitative perspective: An emerging skills set for information systems professionals. *Paper Presented at the 2014 International Association for Computer Information Systems Conference, Las Vegas, Nevada.*