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Title with Font Size 18pt., Times New Roman, Bold, Centered, and Upper and Lower Case

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Author 1, Titles, Ph.D., etc. and Author 2, Titles

Institution 1

Institution 1's Location

Author 3, Titles and Author 4, Titles

Author 5, Titles and Author 6, Titles

Institution 2

Institution 3

Institution 2's Location

Institution 3's Location

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The abstract should not include the heading "Abstract." It will be formatted within a single table. The table size is established by setting the table's width to 100%" and alignment to "centered". The text within the table is justified left and right and is indented one-half inch from both side margins. Font is 10 pt., Times New Roman. No hard returns are to be included within the abstract.

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Keywords: Provide no more than five key reference words.

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Heading Level 1 (2 line space before, and 1 line space after)

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The construction industry has had performance issues for the past twenty years [1, 3, & 5]. The construction industry and construction research programs worldwide have assumed that the problem is industry generated (from GC's, subs, and vendors), resulting in more client management, inspection, direction, and different delivery systems (design-build (DB), construction management at risk (CM@Risk), privately financed initiatives (PFI), indefinite delivery, indefinite quantity (IDIQ), job order contracting (JOC), and design, build, and maintain or operate).

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Heading Level 2 (1 line space before, and 1 line space after)

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Other efforts to improve performance have included lean construction, partnering, construction management, and supply chain management. However, none of the above efforts are based on testing using the scientific method (logical hypothesis that is tested, results analyzed and documented with performance numbers, and the hypothesis validated or modified). As an alternative solution for construction performance failure, the Performance Information Procurement System has been created and tested.

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Heading Level 3 (1 line space before, and 1 line space after)

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The testing has been unique for the following reasons:

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- 1. <Bullets and Numbers are *not* indented>
- 2. The process has been tested 400 times over 10 years (\$260M in construction).

- 3. The process has resulted in 98% customer satisfaction, construction on time, and without contractor generated cost change orders.
- 4. The process showed that contractors continually improved with minimal client management.
- 5. The process has shown that the best value does not necessarily cost more.
- 6. The process validates the hypothesis that the major source of the construction problem is in the client's delivery system.

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Heading Level 4 (1 line space before, in text heading). High performance and continuous improvement require a high level of competition. Without competition, human nature, time, and the passing of information between parties will lead to relationships. The authors theorize that relationships share risk, dilute accountability, and lead to lower performance over time. Competition based on performance forces the contractors to be accountable for their performance. If a contractor does not perform, accountability forces the termination of the contractor. Best value environments award contracts based on past performance and the ability to minimize risk. Best value environments place no value on relationships. Relationships force clients to make biased decisions – and decisions lead to risk. Contrary to popular opinion, relationships, trust, direction, communications to contractors, and time spent by the client's representatives is maximized in the low bid environment (See Figure 2).

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Table 1: Sample analysis of data table explicitness. <Note table format, option 1>

	Measurement					
Equipment Load	Time	Distance	Method	Total Reserve		
Sand	1:54 hr.	2.5 mi.	2 ton dual axle	75%		
Dirt	2:17 hr.	2.3 mi.	1.5 ton single axle	16%		
Gravel	1:47 hr.	1.3 mi.	18 yd. Dump	54%		
Note. The reserve values represent the mean percentages of correctly traveled loads						

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The value of management is maximized when the various participants do not understand their function. Managers are forced to make decisions and exercise control to maintain the system [4]. In an efficient process, management is minimized and the operators control the quality of their own work. The passing of technical information between participants, once the construction event has begun, is minimized.

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Table 2: Sample analysis of data table explicitness. <Note table format, option 2>

Measurement				
Equipment Load	Time	Distance	Method	Total Reserve
Sand	1:54 hr.	2.5 mi.	2 ton dual axle	75%
Dirt	2:17 hr.	2.3 mi.	1.5 ton single axle	16%
Gravel	1:47 hr.	1.3 mi.	18 yd. Dump	54%

Note. The reserve values represent the mean percentages of correctly traveled loads

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Similar to past research partners, moving to an information environment is a cultural change for the client. As identified in the ten years of research of PIPS testing, the source for construction nonperformance is embedded in the inefficient processes of the client.

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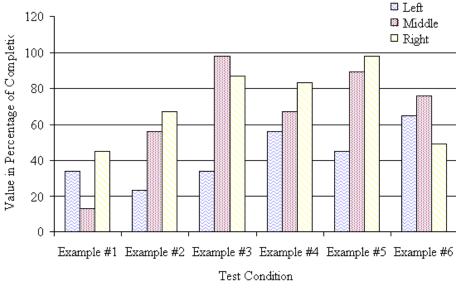


Figure 3: Mean overall motor activity of the 374 hp. Grade changer.

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Conclusion

Conclude your remarks.

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References

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Beckleheimer, J. (1994). *How do you cite URL's in a bibliography?* [WWW document]. URL http://www.nrlssc.navy.mil/meta/bibliography.html.

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Ivey, K. C. (1996, September 2). *Citing internet sources* [WWW document]. URL http://www.eei-alex.com/eye/utw/96aug.html. Also in The Editorial Eye, 19(8), 10-11. Alexandria: EEI.

Li, X., and Crane, N. (1996, May 20). *Bibliographic formats for citing electronic information* [WWW document]. URL http://www.uvm.edu/~xli/reference/estyles.html.

Quinion, M. (1996, March 10). *Citing online sources*. World Wide Words: Michael Quinion on aspects of English [WWW document]. URL http://clever.net/quinion/words/citation.htm.

Tent, J. (1995, February 13). *Citing e-texts summary*. Linguist List, 6(210) [Online serial]. URL http://lamp.cs.utas.edu.au/citation.txt.

Walker, J. R. (1995, April). *Walker/ACW style sheet; MLA-style citations of electronic sources* [WWW document]. URL http://www.cas.usf.edu/english/walker/mla.html.

Further Examples

Journal Manuscript, One Author

Paivio, A. (1975). Perceptual comparisons through the mind's eye. Memory & Cognition, 23 (3), 635-647.

Journal Manuscript, Two Authors

Becker, L. J. & Seligman, C. (1981). Welcome to the energy crisis. Journal of Social Issues, 37 (2), 1-7.

Magazine Manuscript

Gardner, H. J. (1981, December). Do babies have a universal song? *Psychology Today*, 102, 70-77.

Newspaper Manuscript

Study finds free care used more. (1982, April 3). Wall Street Journal, p. A1, A25.

Books, One Author

Bernstein, T. M. (1965). The careful writer: A modern guide to English usage. New York: Athenaeum.

Book, Two Authors

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Edited Book

Letheridge, S., & Cannon, C. R. (Eds.). (1980). Bilingual education. New York: Praeger.

Videotape

Mass, J. B. (Producer), & Gluck, D. H. (Director). (1979). *Deeper into hypnosis* [Videotape]. Englewood Cliffs, NJ: Prentice-Hall.

Eric Document

Smith, L. S. (1990). *How valid are GRE scores?* (Report No. CSOS-R-121). Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools. (ERIC Document Reproduction Service No. ED 123 234).

Unpublished Doctoral Dissertation

Devins, G. M. (1981). *Helplessness, depression, and mood in endstage renal disease*. Unpublished doctoral dissertation, McGill University, Montreal.

Government document, available from the GPO

National Institute of Mental Health. (1982). *Television and behavior* (DHHS Publication No. ADM 82-1234). Washington, DC: US Government Printing Office.

Electronic Format

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Note: provided in the references are two examples of electronic-format examples (the first and third examples are slightly different). Also provided are several addresses for resources of online referencing.