

# Comments to Help Achieve Some Uniformity in the Layout of Published Articles in Sequential Analysis

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**Abstract:** A clearly written abstract is essential. Please add some important [keywords alphabetically](#) (with the first letter capitalized), preferably chosen from the text and not from the title of the paper itself. The importance of the words used in a title is already obvious to readers. The keywords are to be separated from each other by [semicolons \(;\)](#). Also, please provide appropriate subject classification numbers.

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**Keywords:** Bounded CV; Consistency; Data analysis; Known clumping; Practical application; Two-stage sampling; Weight function.

**Subject Classifications:** 62L12; 62G35; 62F25.

## 1. INTRODUCTION

The first paragraph in every section or subsection will flush to the left margin. All other paragraphs will be indented. Please follow this general guideline.

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## 2. OTHER SECTIONS

The equation numbers, for example, (2.1), (2.5), (3.9) should be given consecutively, right flushed. The equation number (2.1) is the first equation in Section 2, the equation number (2.5) may belong to Subsection 2.1, and so on. The tables will be numbered consecutively as Table 1, Table 2, and so on. The figures will be numbered consecutively as Figure 1, Figure 2, and so on. One may write, for example, tables and figures are given in Section 5. See Tables 1-3 in Section 5.1 and Figures 5-8 in Section 5.4. [Please look at a recent issue of SQA](#) and match the spacing, font sizes and general appearance. How are the subsections going to look like? Please read on.

## 2.1. Subsections May be Divided and Sub-Divided as Needed

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Please read on for other helpful details and hints. The main theorem and its interpretations are included in Section 2.1.1.

### 2.1.1. The Main Result is Stated in This Section

The material in subsection will be typed just like that in any other section. The following paragraphs will be indented as usual.

In Section 3, we have explained how theorems and lemmas are to be laid out.

## 3. THE WAY TO STATE THEOREMS AND LEMMAS

In this section, we provide a number of theorems and lemmas. After each [theorem](#) and [lemma](#), one should provide clear explanations and interpretations of the results so stated. The lengthy proofs are deferred to an Appendix to enhance readability and applications.

Theorems and lemmas will be numbered as [Theorem 2.1](#), Theorem 5.3 or [Lemma 2.2](#). These items consecutively belong to Sections 2, 5, and 2 respectively. Pretend that we have already stated Theorems 3.1 and 3.2. The statements of theorems and lemmas should be laid out as follows:

**Theorem 3.3.** *The two-stage procedure (2.2)-(2.3) is consistent, that is the probability of coverage is at least the nominal level for all parameter values.*

A short proof (few lines only) may be laid out as follows after the statement of the theorem. For example, one could write as follows.

*Proof.* The result follows by combining Jensen's inequality and the dominated convergence theorem. Further details are omitted for brevity.  $\square$

**Lemma 3.1.** *The standardized sample mean based on  $N$  observations has a  $N(0,1)$  distribution whatever be the unknown parameters.*

We should emphasize that Lemma 3.1 plays a crucial role in the proof of Theorem 3.3 which in turn eases the proof of Theorem 5.3 in the sequel. We lay down these lengthy proofs in [Appendix A](#).

## 4. TABLES AND FIGURES

The heading for [Table 2](#), for example, will go in the top of the [table](#) as follows, flushed to the left margin:

**Table 2.** Estimated average sample size, its estimated standard error, and other entries along with the weight functions  $g(k)$  and  $h(p)$

Note that a table's caption does not end with a period. The caption for [Figure 8](#), for example, will go under the figure as follows, flushed to the left margin:

**Figure 8.** Bar graphs of four datasets on beetle infestation of Mexican bean crop.

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But, we cannot write simply [Bechhofer et al. \(1954\)](#) for obvious reasons. Please look at the reference list. There is a paper of [Bechhofer, Dunnett, and Sobel \(1954\)](#) that has been cited, and also there is a paper of [Bechhofer, Gupta, Epstein, and Sobel \(1954\)](#)! If one simply writes [Bechhofer et al. \(1954\)](#) inside the text, a reader may not be able to identify the right paper that is needed at this step. In the list of references, one will write [Bechhofer, Dunnett, and Sobel \(1954a\)](#) or [Bechhofer, Gupta, Epstein, and Sobel \(1954b\)](#) instead and refer to these as [Bechhofer et al. \(1954a\)](#) or [Bechhofer et al. \(1954b\)](#) in the text as needed.

One may note that the required Cornish-Fisher expansion is easily found in [Johnson and Kotz \(1970, pp. 125-127\)](#).

Please read on for more notes to set up the list of references. The next Section 5.1 has important information.

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## **APPENDIX A: PROOFS OF LEMMAS**

Some major derivations are included in this section. The equation numbers (A.1), (A.2), ... will be flushed to the right margin.

One may include [more than one Appendix](#) when appropriate. This will largely depend on the material of a paper.

## **APPENDIX B: PROOFS OF THEOREMS FROM SECTION 3**

Other major derivations are included in this section. The equation numbers (B.1), (B.2), ... will be flushed to the right margin.

## **ACKNOWLEDGMENTS**

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## **REFERENCES**

Abraham, D. A. (1996). A Page Test with Nuisance Parameter Estimation, *IEEE Transactions in Information Theory* 42: 2242-2252.

- Allen, J. D., Gonzalez, D., and Gokhale, D. V. (1972). Sequential Sampling Plans for the Bollworm, *Heliiothis zea Environmental Entomology* 1: 771-780.
- Anscombe, F. J. (1949). The Statistical Analysis of Insect Counts Based on the Negative Binomial Distribution, *Biometrics* 5: 165-173.
- Anscombe, F. J. (1950). Sampling Theory of the Negative Binomial and Logarithmic Series Distribution, *Biometrika* 37: 358-382.
- Anscombe, F. J. (1952). Large Sample Theory of Sequential Estimation, *Proceedings of Cambridge Philosophical Society* 48: 600-607.
- Barrigossi, J. A. F. (1997). Development of an IPM System for the Mexican Bean Beetle (Epilachna Varivestis Mulsant) As a Pest of Dry Bean (Phaseolus Vulgaris L.), Ph.D. diss., University of Nebraska-Lincoln.
- Bechhofer, R. E. (1954). ...
- Bechhofer, R. E. (1978). ...
- Bechhofer, R. E. and Albert, M. (1949). ...
- Bechhofer, R. E., Albert, M., and Dunnett, C. (1945). ...
- Bechhofer, R. E., Dunnett, C., and Albert, M. (1947). ...
- Bechhofer, R. E., Dunnett, C., and Kiefer, J. (1961). ...
- Bechhofer, R. E., Dunnett, C., and Kiefer, J. (1963). ...
- Bechhofer, R. E., Dunnett, C., and Sobel, M. (1954a). A Two-Sample Multiple Decision Procedure for Ranking Means of Normal Populations with a Common Unknown Variance, *Biometrika* 41: 170-176.
- Bechhofer, R. E., Epstein, B., and Albert, J. (1957). ...
- Bechhofer, R. E., Epstein, B., and Sobel, M. (1952). ...
- Bechhofer, R. E. and Gupta, S. S. (1954). ...
- Bechhofer, R. E., Gupta, S. S., Epstein, B., and Kiefer, J. (1948). ...
- Bechhofer, R. E., Gupta, S. S., Epstein, B., and Sobel, M. (1951). ...
- Bechhofer, R. E., Gupta, S. S., Epstein, B., and Sobel, M. (1954b). On a Sequential Reliability Problem, *Annals of Mathematical Statistics* 25: 321-334.
- Berti, A., Zanin, G., Baldoni, G., Grignani, C., Mazzoncini, M., Mon-temurro, P., Tei, F., Vazzana, C., and Viggiani, P. (1992). Frequency Distribution of Weed Counts and Applicability of a Sequential Sampling Method to Integrated Weed Management, *Weed Research* 32: 39-44.
- Binns, D. (1975). Sequential Estimation of the Mean of a Negative Binomial Distribution, *Biometrika* 62: 433-440.
- Birnbaum, A. and Healy, W. C., Jr. (1960a). Estimates with Prescribed Variance Based on Two-Stage Sampling, *Annals of Mathematical Statistics* 31: 662-676.
- Birnbaum, A. and Healy, W. C., Jr. (1960b). Remarks on Estimates with Prescribed Variance Based on Two-Stage Sampling, personal communication.
- Chatterjee, S. K. (1959). On the Extension of Stein's Two-Sample Procedure to the Multinomial Problem, *Calcutta Statistical Association Bulletin* 8: 121-148.
- Cooke, P. J. (1971). Sequential Estimation in the Uniform Density, *Journal of American Statistical Association* 66: 614-617.
- Ghosh, M. and Mukhopadhyay, N. (1981). Consistency and Asymptotic Efficiency of Two-Stage and Sequential Estimation Procedures, *Sankhya, Series A* 43: 220-227.
- Ghosh, M., Mukhopadhyay, N., and Sen, P. K. (1997). *Sequential Estimation*, New York: Wiley.

- Hyakutake, H. (1992). Selecting the Better Component of a Bivariate Exponential Distribution, *Statistics & Decisions* 10: 153-162.
- Isogai, E. and Uno, C. (1994). Sequential Estimation of a Parameter of an Exponential Distribution, *Annals of Institute of Statistical Mathematics* 46: 77-82.
- Johnson, N.L. and Kotz, S. (1970). *Distributions in Statistics: Continuous Distribution 1*, New York: Wiley.
- Klein, J. P. and Moeschberger, M. L. (2003). *Survival Analysis*, second edition, New York: Springer-Verlag.
- Kuno, E. (1969). A New Method of Sequential Sampling to Obtain Population Estimates with a Fixed Level of Accuracy, *Research in Population Ecology* 11: 127-136.
- Lerche, H. R. (1986). An Optimal Property of the Repeated Significance Test, *Proceedings of National Academy of Sciences U.S.A.* 83: 1546-1548.
- Mukhopadhyay, N. (2002). Sequential Sampling, in *The Encyclopedia of Environmetrics*, vol. 4, A. H. Shaarawi and W. W. Piegorsch, eds., pp. 1983-1988, Chichester: Wiley.
- Mukhopadhyay, N. and Datta, S. (1995). On Fine-Tuned Bounded Risk Sequential Point Estimation of the Mean of an Exponential Distribution, *South African Statistical Journal* 29: 9-27.
- Mukhopadhyay, N. and Diaz, J. (1985). Two-Stage Sampling for Estimating the Mean of a Negative Binomial Distribution, *Sequential Analysis* 4: 1-18.
- Mulekar, M. S. and Young, L. J. (1991). Approximations for a Fixed Sample Size Selection Procedure for Negative Binomial Populations, *Communications in Statistics-Theory & Methods* 20: 1767-1776.
- Mulekar, M. S. and Young, L. J. (2004). Sequential Estimation in the Agricultural Sciences, in *Applied Sequential Methodologies*, N. Mukhopadhyay, S. Datta, and S. Chattopadhyay, eds., pp. 293-318, New York: Dekker.
- Onsager, J. A. (1976). The Rationale of Sequential Sampling, with Emphasis on Its Use in Pest Management, *Technical Bulletin* 1526, Washington, D.C.: Agricultural Research Service, USDA.
- Rosner, G. L. and Berry, D. A. (1995). A Bayesian Group Sequential Design for a Multiple Arm Randomized Clinical Trial, *Statistics in Medicine* 14: 381-394.
- Sen, P. K. (1985). *Theory and Applications of Sequential Nonparametrics*, Philadelphia: SIAM.
- Spiegelhalter, D. J., Freedman, L. S., and Parmar, M. K. B. (1994). Bayesian Approaches to Randomized Trials, *Journal of Royal Statistical Society, Series B* 157: 357-416.
- Starr, N. and Woodroffe, M. (1972). Further Remarks on Sequential Estimation: The Exponential Case, *Annals of Mathematical Statistics* 43: 1147-1154.
- Stein, C. (1949). Some Problems in Sequential Estimation (abstract), *Econometrica* 17: 77-78.
- Sterling, W. L. (1976). Sequential Decision Plans for the Management of Cotton Anthropods in Southeast Queensland, *Australian Journal of Ecology* 1: 265-274.
- Takahashi, H. (1990). Asymptotic Expansions for Repeated Significance Tests for the Normal Means, *Journal of Japan Statistical Society* 20: 51060.
- Woodroffe, M. (1977). Second-Order Approximations for Sequential Point and Interval Estimation, *Annals of Statistics* 5: 984-995.
- Wu, Y. (2005). *Inference for Change-Point and Post-Change Means After a CUSUM*

- Test*, Lecture Notes in Statistics 180, New York: Springer-Verlag.
- Zabell, S. (1976). Rates of Convergence for Conditional Expectations, I. Large Deviation Case; and II. General Theorems, unpublished.
- Zacks, S. and Mukhopadhyay, N. (2005). Bounded Risk Estimation of the Exponential Parameter in Two-Stage Sampling, *Sequential Analysis*, in press.
- Zou, G. (1998). Weed Population Sequential Sampling Plan and Weed Seedling Emergence Pattern Prediction, Ph.D. diss., University of Connecticut-Storrs.

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