CHAPTER 13

THE INTRODUCTION

Purpose of the Introduction

The Introduction to a primary manuscript is critically important for a number of reasons, one of which is that this is where an author establishes the scientific argument that it was important to do the research that will be described in the manuscript. The Introduction addresses the specific aspect of a primary publication as defined in Chapter 1, by allowing the reader to begin "to evaluate the intellectual processes involved." This is particularly relevant to the "First step" that we discussed in Chapter 10, in which the author should identify the single most important piece of new knowledge that the manuscript will provide to the journal's readership i.e. the answer to a question, or solution to a problem, that is relevant to the readers. The Introduction, in this respect, should be formulated to establish the conceptual framework for the importance of that question or problem. The actual purpose of the Introduction, therefore, is:

> To provide a conceptual justification for the research that will be presented in the rest of the manuscript. Minimally, it must establish a framework for the question that will be answered definitively, or the problem that will be solved, by the results of the completed studies described in the manuscript.

To achieve this goal, there are a number of issues that need to be specifically addressed in a relatively short space. These questions include: What is the specific area or domain of focus of the work to be described? What exactly has been already established (the "state-of-the-art") within the given field/discipline? More specifically, what is the key relevant scientific literature that helps to establish the intellectual basis for the problem? Providing this information should lead naturally to the first key "centerpiece" of the Introduction; namely, what was the central problem/question that the described research was designed to address? This should be followed by information related to: What was the hypothesis that was tested/addressed in the manuscript? Further, what was the contextual framework for the approach (the "system") used to address the question or, in other words: What was the underlying experimental strategy or approach used to test the hypothesis? Ideally, the presentation of all of this information in the manuscript's Introduction should not require more than about 1 1/2 to 2 double-spaced pages.

Organization of the Introduction

From an organizational perspective, it is instructive to consider the Introduction to the manuscript as consisting of two complementary components: the Contextual Orientation (Part 1) and the Manuscript Focus (Part 2). Briefly, the Contextual Orientation is designed to orient the reader with respect to the question that the research reported in this manuscript is going to answer, or the problem that will be solved. The Manuscript Focus should justify and describe the approach used to answer that question.