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| ***Techniques for Documenting with Proof or Supporting Evidence, and Related Strategies for Problem Solving***  **By David Alderoty © 2016**  **Chapter 1) Introduction, and the Limitations and Problems of Conventional Writing and Citation Strategies, and the Alternatives**  **This chapter contains a little over 2,500 words**  [**If you want to go to the homepage, left click on these words, or go to:**](http://www.TechForText.com/DP)  [**www.TechForText.com/DP**](http://www.techfortext.com/DP)  **To contact the author use David@TechForText.com**  [**or left click for a website communication form**](http://www.david100.com/Mail)  **Table of Contents, and an Outline of this Chapter**  The following is a hyperlink table of contents, as well as an outline of this chapter. If you left click on a blue underlined heading, the corresponding topic or subtopic will appear on your computer screen. Alternatively, you can scroll down to access the material listed in the table of contents, because this chapter is on one long webpage.  [Topic 1) About this Book 3](#_Toc462026357)  [Topic 2) Introduction 4](#_Toc462026358)  [**The Limitations of the Conventional Research and Citation Strategy** 5](#_Toc462026359)  [**Citations From Published Sources for Original and Non-Original Work** 6](#_Toc462026360)  [Topic 3) The Rules Associated with Academic Writing, and the Conventional Research and Citation Strategy, can be Dysfunctional 7](#_Toc462026361)  [**Writing Academic Documents with a Modified Set of Techniques and Rules** 8](#_Toc462026362)  [**Getting Permission to use a Modified Set Of Rules for your Writing Assignment** 10](#_Toc462026363)  [**Web-Based Articles for Additional and Supporting Information** 10](#_Toc462026364)  [Topic 4) 28 Techniques for Obtaining Proof and/or Supporting Evidence to Convince Your Readers of the Validity of Your Work 11](#_Toc462026365)  [Topic 5) Problem-Solving, and Goal Attainment Strategies, with the 28 Techniques 14](#_Toc462026366)  **This E-Book Provides Additional and Supporting Information from other Authors, with Web Links**  This e-book contains links to web-based articles and videos from other authors, for **additional, alternative, and supporting information.** The links are the blue underlined words, presented throughout this e-book. However, some of these links are to access different sections of this e-book, or material on my own websites.  Quotes and paraphrases in this e-book have hyperlinks to access the original source. The quotes are presented in brown text, which is the same color of these words. (The precise text color is RGB Decimal 165, 42, 42, or Hex #a52a2a)  Some of the web links in this e-book will probably fail eventually, because websites may be removed from the web, or placed on a new URL. If a link fails, use the blue underlined words as a search phrase, with [www.Google.com](http://www.google.com/). If the link is for a video, use [www.google.com/videohp](http://www.google.com/videohp). The search will usually bring up the original website, or one or more good alternatives. |

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| [***For those who prefer listening, as an alternative to reading, this book is recorded in an audio format. Left click on these words to start the audio narration. This recording place for a little less than 16 minutes and 15 seconds.***](C1.mp3) |

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| **Topic 1) About this Book**  This e-book is a capstone project for a master’s degree, from the graduate program at Linden State College. However, this book is not a thesis. It is an instructional text, written for the web, in the style of a textbook.  This book presents 28 techniques for devising proof or evidence to support the validity of statements that are produced with nonfiction writing. These techniques are potentially useful for anyone who is writing expository or technical material. The techniques also have utility in various types of industrial and scientific problems, especially when it is necessary to write grant proposals or feasibility studies. My interest in this subject is based on my undergraduate and graduate studies, which were focused on expository and technical writing.  The book contains many links to access additional and supporting information, from web-based articles and videos. Relatively simple wording and descriptions were used to write this book, so that it will be useful for a wide range of readers. Each chapter is on one long webpage, with a hyperlink table of contents, so the reader can easily access the topics of this book. To facilitate ease of reading, the font is relatively large, with 1 ½ spaces between lines.  For those who prefer listening, as an alternative to reading, this book is recorded in an audio format. Each chapter has one or more hyperlinks on the upper portion of the webpage to start an audio narration of the text. |

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| **Topic 2) Introduction**  This e‑book is written from the perspective of a nonfiction writer, who wants to support his writing with proof or evidence to convey the validity of his work. The common sense solution to this problem is to provide appropriate citations from reliable published sources. This works well for research papers, when students obtain the information they are writing about from books, and journal articles. However, this strategy has its limitations, which is explained in the following paragraphs.  **The Limitations of the Conventional Research and Citation Strategy**  If you are writing a cover letter to obtain employment or to gain acceptance to graduate school, you may be writing about your knowledge, skills, experience. In such a case, you cannot use the conventional research and citation strategies as supporting evidence for your achievements. An exception to this is if your work and related achievements have been favorably reviewed by one or more authors in reliable published sources.  If you are **writing truly ORIGINAL** material, quotes or paraphrases from other authors, probably will **not** be useful as proof or supporting evidence for convincing readers of the validity of your work. For example, if you created an original software program, and you are writing about your invention, citations from other authors will **not** be adequate evidence that your work is valid. You cannot prove that your software functions with citations. However, if one or more authors reviewed your work and wrote about it favorably, then related citations would be good supporting evidence that your writing and software are valid.  **Citations From Published Sources for Original and Non-Original Work**  If you used published sources to create your original work, such as by using paraphrases, quotes, or original statistics or research, you of course have to credit the authors. ***However, these citations generally will NOT represent proof or supporting evidence for your ORIGINAL work.*** Even if you work is **not** original, and it primarily consists of information you obtain from scholarly publications, citations **may** or **may NOT** be adequate supporting evidence, for the validity of your original ideas and thesis.  The idea to keep in mind is the conventional research and citation strategy can be very useful, but it has its limitations. If you are **ONLY** relying on quotes and paraphrases from published sources for your writing, your work probably will **not** have much value outside of the school environment. However, citations from published sources are **not** the only way that you can support your writing. This is explained in topic 4 of this book. |

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| **Topic 3) The Rules Associated with Academic Writing, and the Conventional Research and Citation Strategy, can be Dysfunctional**  The problems described in this topic are not my discoveries. They are widely known. This can be seen by examining the web-based articles listed at the end of this topic.  Academic writing used in colleges and graduate schools can indirectly restrict or prevent creativity. This is likely to happen, **when** instructors or advises require students to support every statement they write with citations from published sources. Obviously, creative efforts that result in TRULY ORIGINAL material cannot be supported by published sources. However, this is probably no problem for students that do not have the inclination or time to create original material.  Academic writing generally requires that every sentence must be written in the [third person](https://www.google.com/webhp?sourceid=chrome-instant&rlz=1C1OPRA_enUS705US705&ion=1&espv=2&ie=UTF-8#q=third+person+writing+Academic+writing), and in the [passive voice](https://www.quora.com/What-is-the-origin-of-the-exclusive-use-of-passive-voice-in-academic-writing). This can make the article difficult to write, and very difficult to read and comprehend. This problem is amplified when **unnecessary jargon**, and/or when excessively long sentences are used.  When any set of rules that relate to writing are used blindly, or use just because they are required, unsatisfactory results are likely to occur. However, the rules associated with academic writing can be modified and used in a sensible way, to write documents that are relatively easy to read. **This is explained under the following subtopic.**  **Writing Academic Documents with a Modified Set of Techniques and Rules**  As explained above, academic writing typically involves the third person, and the passive voice, which is usually coupled with technical terminology. This often results in a document that is difficult to write, and very difficult to read. However, the third person, passive voice, and appropriate technical terminology, can be used in a **CONTROLLED WAY** to create a document that is easy to read, and easy to write. The meaning of the capitalize words in red bold type will become clear after you finish reading this subtopic.  While you are writing, evaluate the quality and utility of your statements, from the point of view of the reader. To do this optimally, think of an unfriendly highly critical reader, who is commenting on your work, while you are writing. If this works for you, you will become aware of errors, and less than optimal wording and sentence structure, while you are writing. With this awareness, you can make corrections and improvements in your work immediately, while you are still writing.  When you are writing a **sentence,** use the passive voice, and/or the **third person** in academic writing, **if it produces optimum results.** However, use the active voice, and/or the first or second person when it produces better results, in a specific sentence. That is when the passive voice or third person results in a sentence that is awkward, difficult to read, or difficult to write, use the active voice, and/or first or second person. Simply put, use whatever works best.  Keep in mind that the above, involves a sentence-by-sentence evaluation, to choose the optimum way to write each sentence. However, do not write an entire document in the active voice, or in the first or second person, **if it is supposed to be in the academic writing style**. If you carry out the above strategy properly, you will probably end up with no more than a few sentences that are written in the active voice, or in the first or second person.  When using terminology that may be confusing to some readers, explain what you mean, or defined the terminology. Even simple words when used in a special context might be confusing if they are not explained, or properly defined. If you believe most of your readers are not likely to understand a term, it may be best not to use it.  When you are using highly technical terms, provide definitions that can be understood by individuals who are not experts in the topic of your paper. For example, if you are writing an article on nuclear physics, ideally you should define highly technical terms so that engineers and chemists can understand your work.  If it is not feasible to support a statement with published sources, try to support it with an alternative strategy. This might involve any of the 28 techniques described in this book, such as inductive reasoning, experimental results, statistical data, a formal mathematical proof, photographic evidence, etc.  The ideas presented in the above paragraph are not only for academic material, it applies to all types of writing. That is the wording, voice, sentence structure, document layout, and many other components, should be controlled and manipulated to create a document that satisfies the needs of the readers.  **Getting Permission to use a Modified Set Of Rules for your Writing Assignment**  Many of the techniques and strategies suggested in this e-book represent a modified set of rules for writing. This might be problematic, if you are writing for specific publisher, academic journal, or for a college or graduate school assignment. In such a case, you should get permission to use an alternate set of rules. To do this, write a document with the alternative set of rules, which will be your supporting evidence for your request. It could also represent your first draft of an article or school assignment, assuming it is submitted at least 12 days before the deadline.  **Web-Based Articles for Additional and Supporting Information**  [Why Academic Writing Sucks Eric Charles Ph.D.](https://www.psychologytoday.com/blog/fixing-psychology/201409/why-academic-writing-sucks)  [What is the origin of the exclusive use of passive voice in academic writing?](https://www.quora.com/What-is-the-origin-of-the-exclusive-use-of-passive-voice-in-academic-writing)  [The Needless Complexity of Academic Writing Victoria Clayton](http://www.theatlantic.com/education/archive/2015/10/complex-academic-writing/412255)  [Why academics can’t write by Michael Billig](http://www.prospectmagazine.co.uk/blogs/prospector-blog/bad-academic-writing)  [Judgment and Decision Making, On the reception and detection of pseudo-profound bullshit Gordon Pennycook∗ James Allan, Cheyne Nathaniel and others](http://journal.sjdm.org/15/15923a/jdm15923a.pdf)  [A Kind Word for Bullshit: The Problem of Academic Writing, Philip Eubanks](http://writing2.richmond.edu/training/383/383restricted/bullshit.pdf)  [Dysfunctional Academic Writing, Suzanne Akbari, Alexandra Gillespie](http://www.inthemedievalmiddle.com/2015/05/how-do-we-write-dysfunctional-academic.html)  [Avoiding “Academic Bullshit” Jackson State University, Kathi R. Griffin](http://www.jsums.edu/wrightcenter/2015/04/08/avoiding-academic-bullshit-meeting-disengaged-students-where-they-are/) [Article Rhetorical Analysis - The Problem of Academic Writing](https://www.netessays.net/viewpaper/129648.html) [Why I Write Bad By MILO B. BECKMAN](file:///C:\Users\David\Google%20Drive\DP\WorkONChapter-1-Version-2\2014http:\www.thecrimson.com\article\2014\11\21\harvard-beckman-lousy-writing)  [The trouble with academic writing](https://ddbuckingham.files.wordpress.com/2015/04/academic-writing1.pdf) |

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| **Topic 4) 28 Techniques for Obtaining Proof and/or Supporting Evidence to Convince Your Readers of the Validity of Your Work**  Presented below there is a list of 28 techniques for generating proof and/or supporting evidence, for the sentences, paragraphs, and documents you write. This list does not contain any explanations or descriptions of the techniques. However, the techniques will be explained in detail in other chapters of this book.   * Technique 1) The Conventional Research and Citation Strategy * Technique 2) Writing from Your Own Knowledge and Experience, and Searching for Published Sources that Support the Statements you Wrote * Technique 3) Writing a Document with a Relevant EXPERT: Co-Author, Editor, and/or Reviewer * Technique 4) Using historical evidence * Technique 5) Using Rules, Laws, and Court Decisions as Supporting Evidence * Technique 6) Interviews and/or Discussions to Obtain Supporting Evidence * Technique 7) Deductive [reasoning](https://www.google.com/search?q=logical+deduction&rlz=1C1OPRA_enUS585US585&oq=Logical+deduction&aqs=chrome.0.0l6.781j0j8&sourceid=chrome&es_sm=93&ie=UTF-8#q=deductive+reasoning) * Technique 8) Inductive reasoning * Technique 9) Reasoning based on common sense * Technique 10) Reasoning based on educated common sense, WITHIN A SPECIFIC DISCIPLINE OR SPECIALIZED FIELD * Technique 11) Reasoning based on cause-and-effect * Technique 12) Reasoning with schematic diagrams, or flowcharts * Technique 13) Reasoning based on mathematics * Technique 14) Using and/or creating terms, and categories that are TRUE BY DEFINITION. * Technique 15) Explaining a phenomena, an occurrence, a task or technique in a logical way (I used this technique extensively in this e‑book.) * Technique 16) Experimental evidence * Technique 17) Using the results of a TRIAL AND ERROR effort, as supporting evidence * Technique 18) Trial evaluation by the reader * Technique 19) Using a functioning device, or prototype as proof and/or supporting evidence. * Technique 20) Physical Evidence * Technique 21) Evidence based on surveys * Technique 22) Evidence based on measurements, statistics, and probability assessments * Technique 23) Electronically recorded evidence, such as digital photographs, videos, and sound recordings * Technique 24) Observations, and experiences, as supporting evidence * Technique 25) Using your own credentials as supporting evidence * Technique 26) Using URLs, and/or hyperlinks to display supporting evidence from the Internet * Technique 27) Using your own web-based material as supporting evidence * Technique 28) This represents any technique that is not mentioned above |

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| **Topic 5) Problem-Solving, and Goal Attainment Strategies, with the 28 Techniques**  My plans for this book were initially focused only on writing documents with proof or supporting evidence. However, I expanded the scope of the book to include problem solving, and goal attainment efforts. This is because most of the 28 techniques described in this book are also useful for complex problems and goals. These techniques are especially useful for industrial and scientific problems and objectives, and perhaps less useful for the relatively simple problems and goals that we all face in everyday life. Complex problems and objectives often require experimentation, mathematical evaluation, research from reliable published sources, deductive and inductive reasoning, as well as many of the other 28 techniques presented in this book.  In addition, complex problems and objectives, especially in science and industry, often require a team of experts, substantial funding, as well as **documents** with proof and/or supporting evidence. The **documents** may involve [technical reports](https://owl.english.purdue.edu/owl/owlprint/726/) to inform experts of the nature of the problem, [feasibility studies](http://www.mymanagementguide.com/feasibility-study-reporting-steps-to-writing-a-feasibility-study-report-fsr/), and [grant proposals](http://writingcenter.unc.edu/handouts/grant-proposals-or-give-me-the-money/) to obtain funding.  The initial chapters of this book will be focused primarily on the 28 techniques and writing. The later chapters of this book will be focused on Problem solving and goal attainment strategies. |