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| ***Techniques for Documenting with Proof or Supporting Evidence, and Related Strategies for Problem Solving***  **By David Alderoty © 2016**  **Chapter 11) Common Knowledge, and Common Knowledge Within A Specialized Field, with Related Concepts**  [**This e-book presents 28 techniques for supporting the validity of the statements you write, and for problem-solving**](http://www.techfortext.com/DP/List)  **Left click on the above for a list of the techniques**  Note, this chapter explains a component from [**technique‑9**](http://www.TechForText.com/DP/chapter-9), which is ***common knowledge***, and a component from **technique-10**, which is ***common knowledge within a specialized field****.* Techniques 9 and 10 can be accessed by left clicking on the blue underlined words above.  **This chapter contains a little over 3,060 words**  **If you want to go to chapter 10, left click on the following link:**  [**www.TechForText.com/DP/chapter-10**](http://www.TechForText.com/DP/chapter-10)  **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.) Common Knowledge, and Common Knowledge within a Specialized Field 4](#_Toc466977649)  [**Subtopic, A Brief Description of Common Knowledge** 5](#_Toc466977650)  [**Subtopic, A Brief Description of Common Knowledge within a Specialized Field** 6](#_Toc466977651)  [**Subtopic, Definition of Common Knowledge** 7](#_Toc466977652)  [**Subtopic, Common Knowledge and Your Writing** 9](#_Toc466977653)  [**Subtopic, is Supporting Evidence Needed when Your Writing Involves Common Knowledge** 9](#_Toc466977654)  [**Subtopic, The Relativity of Common Knowledge** 10](#_Toc466977655)  [**For Additional and Supporting Information on Common Knowledge, see the Following Web-Based Sources** 10](#_Toc466977656)  [Topic 2.) Technique-10, a Definition of Common Knowledge within a Specialized Field 11](#_Toc466977657)  [**Subtopic, Examples of Common Knowledge within a Specialized Field** 12](#_Toc466977658)  [**Subtopic, Writing with, Common Knowledge within a Specialized Field** 14](#_Toc466977659)  [**Subtopic, The Relativity of Common Knowledge within a Specialized Field** 14](#_Toc466977660)  [**Additional and Supporting Information from Web-Based Articles** 15](#_Toc466977661)  [Topic 3.) Three Categories of Information, and Related Concepts 16](#_Toc466977662)  [**Subtopic, The Opposite of Common Knowledge, Original Information** 16](#_Toc466977663)  [**Subtopic, Original Material Might Eventually Become Common Knowledge** 18](#_Toc466977664)  [**Subtopic, When Your Writing Contains Material That Does Not Require Citations, You Might Inadvertently Deceived Your Readers** 18](#_Toc466977665)  [**Subtopic, The School Environment, and Citation Requirements** 20](#_Toc466977666)  [**Subtopic, Going Beyond Common Knowledge and Common Sense, to Write a Document, Solve a Problem, or Obtain a Goal** 20](#_Toc466977667)  [**Additional, and Supporting Information from Web-Based Sources** 21](#_Toc466977668)  [**Web-Based Articles for Additional and Supporting Information for the Material Presented in this Chapter** 22](#_Toc466977669)  **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.***  [***For an audio narration of TOPIC 1, left click on these words (requires 8 minutes, and 14 seconds).***](file:///F:\2-WebsitesGS\DP\DP\Chapter-11\P1.mp3)  [***For an audio narration of TOPIC 2, left click on these words (requires 5 minutes, and 24 seconds).***](file:///F:\2-WebsitesGS\DP\DP\Chapter-11\P2.mp3)  [***For an audio narration of TOPIC 3, left click on these words (requires 8 minutes, and 50 seconds).***](file:///F:\2-WebsitesGS\DP\DP\Chapter-11\P3.mp3) |

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| **Topic 1.) Common Knowledge, and Common Knowledge within a Specialized Field**  |||  [**In chapter 9**](http://www.techfortext.com/DP/chapter-9), **reasoning based on common sense, and common knowledge** was explained, and it is designated as **technique-9**. [**Inchapter 10**](http://www.techfortext.com/DP/chapter-10), **reasoning based on educated common sense, and common knowledge within a specialized field** is explained, and it is designated as technique‑10. In this chapter, the focus will be on two of the components of techniques 9 and 10, which are ***common knowledge*,** and ***common knowledge within a specialized field*.**  **Subtopic, A Brief Description of Common Knowledge**  |||  When a statement fits the definition of **common knowledge** it is comprised of information that is familiar to your readers, as well as to a general audience. (A precise definition is provided several paragraphs below.) An example of common knowledge is During the Civil War, Abraham Lincoln was president of the United States. Another example is this e-book. **That is most of the information in this e-book falls under the category of common knowledge. However, some of the more complex material in this book can be classified as common knowledge within a specialized field.**  Keep in mind, that documents may contain some statements that fit the general category of common knowledge, coupled with statements that do **not** fit this category. For example, this e-book contains common knowledge, combined with common knowledge within a specialized field.  **Subtopic, A Brief Description of Common Knowledge within a Specialized Field**  |||  When a statement fits the definition of **Common knowledge within a specialized field**, it is comprised of information that is **widely known within a** **discipline**, **specialized field**, or **trade.** For example, the following statement is common knowledge within the field of mathematics:  , proof: by substitution:  The validity of the red mathematical expression can be proved with  the Pythagorean theorem, by dividing the left and right side of the following equation by This resulted in  A precise definition of common knowledge within a specialized field is provided in topic-2.  Keep in mind that documents may contain some statements that fit the above category, coupled with statements that do not fit this category. For example, this might involve common knowledge within a specialized field combined with original information.  **Subtopic, Definition of Common Knowledge**  |||  Based on the way I am using the terminology, *common knowledge is information that is widely known, can be understood by a general audience, and it does* ***not*** *require citations, or supporting evidence.* Information in this category can generally be checked for accuracy by the writer, or by the readers with general reference sources, such as with encyclopedias, almanacs, dictionaries, and Google search.  You can check information in reference sources to determine if it is common knowledge. Specifically, if you find the same information in two or more reliable sources, without citations, it is most likely common knowledge.  When we write a term paper or document, we create **statements**. Some of the statements might fit the definition of common knowledge, and the statements that do not fit the definition may require citations and/or supporting evidence. The **STATEMENT**, *can be* ***thought of*** *as the structural unit of a document*, and the above definition can be rephrased accordingly, as follows:  ***A statement is common knowledge, if it is comprised of information that is widely known, can be understood by a general audience, and it does not require citations, or supporting evidence.***  **Subtopic, Examples of Common Knowledge**  |||  ***Three specific examples of common knowledge are presented below:***   * George Washington was the first elected president of the United States, * Christopher Columbus discovered America in 1492 * There are 365 days in a year, except for leap years, which have 366 days.   **Six general examples of common knowledge are presented below:**   * Generally accepted etiquette rules * Commonly used vocabulary * Commonly accepted expectations of cause-and-effect, such as if you drop a sheet of glass on concrete it will probably break, if you are exposed to the rain your clothing will get wet * The non-technical descriptions of commonly used items, such as cookware, tables, chairs, computers, cameras, hammers, chisels * The non-technical descriptions of foods that are commonly known to most people, such as milk, eggs, cheese, cake, beef, pork, fish, etc. * The non-technical descriptions of household chemicals, such as bleach, ammonia, laundry detergent, drain cleaner, window cleaner, furniture polish, etc.   **Subtopic, Common Knowledge and Your Writing**  |||  When you write a statement that is comprised of [**common knowledge** it is **not** necessary to cite sources](https://integrity.mit.edu/handbook/citing-your-sources/what-common-knowledge), for that statement, even if you obtain the information from one or more sources. However, if you are paraphrasing or quoting from a reference source or any published document, you must credit the source. If you took notes from a reference source, and used them to write your document, you might have **inadvertently** paraphrased. In such a case, it is probably best to credit the sources. If you did not use any notes, but you notice that your document looks like it contains paraphrases from the sources you studied, credit the sources.  **Subtopic, is Supporting Evidence Needed when Your Writing Involves Common Knowledge**  |||  It is unnecessary to provide any supporting evidence for common knowledge, because it is generally accepted without supporting evidence. However, if you think that your readers might be unfamiliar with the material, it might be best to provide some type of supporting evidence, to convince the readers of the validity of your statements. This can simply involve referring your readers to sources that agree with the statements you are writing. You can also use conventional citations, with quotes or paraphrases from reliable sources, as supporting evidence.  **Subtopic, The** [**Relativity**](https://www.youtube.com/watch?v=ckhA1Xt8dLY) **of Common Knowledge**  |||  **Common knowledge** is information that your readers will accept as valid without citations, or supporting evidence. If your readers do **not** accept it as valid, it is not common knowledge for your readers. For example, if you are writing for an American audience, and you state that George Washington was the first president of the United States, you are dealing with common knowledge. Thus, it is **not** necessary to cite sources, or provide any supporting evidence. **However, if you are writing for people in India that are not familiar with American history, you are not dealing with common knowledge.**  In such a case, it probably will be necessary to cite sources to provide supporting evidence for the validity of your statements about George Washington.  **For Additional and Supporting Information on Common Knowledge, see the Following Web-Based Sources**  |||  [What is Common Knowledge?](https://integrity.mit.edu/handbook/citing-your-sources/what-common-knowledge) This is a very good source of information  [Video How to Cite Sources: A Comment on Common Knowledge, Kevin deLaplante](https://www.youtube.com/watch?v=ckhA1Xt8dLY) This is an excellent video, but it is very brief. It sums up important aspects of common knowledge very effectively.  [Examples of Common Knowledge](http://gethelp.library.upenn.edu/PORT/documentation/commonknowledge.html)  [Not-So-Common Knowledge](https://www.princeton.edu/pr/pub/integrity/pages/notcommon/)  [Common Knowledge, What you don't have to cite](http://www.usg.edu/galileo/skills/unit08/credit08_04.phtml) |

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| **Topic 2.) Technique-10, a Definition of Common Knowledge within a Specialized Field**  |||  Based on the way I am using the terminology, ***common knowledge within a specialized field*** *is information that does* ***not*** *require citations or supporting evidence, because it is widely known, and understood by people that are trained in a specific discipline, specialized field, or trade.* Information in this category usually will not be familiar to general readers, even if they are highly educated.  Common knowledge within a specialized field can generally be checked for accuracy by the writer, or by the readers, with reference sources that relate to the specific discipline, specialized field, or trade. In addition, you can check the information in specialized reference sources to determine if it is Common knowledge within a specialized field. Specifically, if you find the same information in two or more reliable specialized reference sources without citations, it is most likely common knowledge within a specialized field.  The **STATEMENT**, *can be* ***thought of*** *as the structural unit of a document*, and the above definition can be rephrased accordingly, as follows:  ***A statement is common knowledge within a specialized field, if it is comprised of*** *information that does* ***not*** *require citations or supporting evidence, because it is widely known, and understood by people that are trained in a specific discipline, specialized field, or trade*.  **Subtopic, Examples of Common Knowledge within a Specialized Field**  |||  Three specific examples of **common knowledge within the specialized field are presented below:**   * If X and Y are perpendicular to each other, and they represent the length of two sides of a right triangle, then represent the length of the hypotenuse of the triangle. * If sin(A)=, and cos(A)= , then This is because which is equal to tan(A)   **Five general examples of common knowledge a within the specialized field are presented below:**   * The specialized vocabulary, terminology, or jargon used in a specific discipline, specialized field, or trade * Most of the information presented in textbooks and instruction manuals that relate to a specific discipline, specialized field, or trade: This usually includes related theories, techniques, and concepts. * The history of the development of the specific discipline, specialized field, or trade * Common problems and goals that relate directly or indirectly to the specific discipline, specialized field, or trade * Descriptions, and instructions that relate to the techniques, tools, and equipment that is commonly used in a specific discipline, specialized field, or trade   **Subtopic, Writing with, Common Knowledge within a Specialized Field**  |||  When you use **common knowledge within a specialized field** in your writing, it is **not** necessary to cite sources, even if you obtain the information from one or more published documents. This is assuming that you are **not** paraphrasing, or quoting, and your readers are likely to be familiar with the material in your document. If this is **not** the case, you have to credit your sources, and/or provide evidence to support the validity of your statements.  **Subtopic, The Relativity of Common Knowledge within a Specialized Field**  |||  Just as is the case with common knowledge, **common knowledge within a specialized field** is a relative concept. When information or statement in this general category fits the criteria described at the end of this paragraph it is common knowledge within a specialized field. When this is the case, it is **not** necessary to provide citations and/or supporting evidence for the statements in your document.   * **When YOUR** readers are most likely to understand the specialized material you are writing about * **When YOUR** readers are likely to consider the specialized material you are writing about as valid, without additional supporting evidence   When the statement does not meet the above criteria, from the point of view of your readers, it is not common Knowledge within a specialized field, and citations from published sources and/or supporting evidence are required.  **Additional and Supporting Information from Web-Based Articles**  |||  [Common Knowledge, **“Within a given discipline, there is a body of common knowledge that an outsider (even an educated college student who doesn’t happen to be in your field) might not know.”**](http://ctl.yale.edu/writing/using-sources/understanding-and-avoiding-plagiarism/common-knowledge)  [Common Knowledge for Physicians & Pharmacists: **“Specialized knowledge in your field can be considered common knowledge, but only if your audience is individuals in your field!”**](http://libraryguides.neomed.edu/c.php?g=324191&p=2170079)  [Common Knowledge in Patent Prosecution: **“In patent prosecution, an examiner often mentions the term "common knowledge" when evaluating a step forward in an invention, as one cannot patent common knowledge. Common knowledge in the IP sense is generally a fact known or ought to be known to one skilled in the art and can be applied by such a person to solve specific technical problems.”**](http://www.chinalawinsight.com/2009/11/articles/intellectual-property/common-knowledge-in-patent-prosecution/)  [Field Science—the Nature and Utility of Scientific Fields](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4600110/) |

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| **Topic 3.) Three Categories of Information, and Related Concepts**  |||  I am dividing information into three broad categories, which are **1)** **original information, 2) common knowledge**, and **3)** **common knowledge within a specialized field**. These categories are important, because they generally have different citation requirements, and different needs for supporting evidence. This will become apparent after you have read this topic.  **Subtopic, The Opposite of Common Knowledge, Original Information**  |||  Original information is **not** common knowledge, and if you created it, it is necessary to provide all the supporting evidence you have, to convince the readers of its validity. If you obtained the original information from published sources, such as from scientific journals, you must credit the authors using an appropriate citation style. **This is required, even if you do not use any quotes or paraphrases.**Even if you learned the **original information** several years ago, you still must credit the original source.  **In What Sources are you Most Likely to Encounter Original Material, and Where are you Most Likely to Encounter Material Classified as Common Knowledge**  *|||*  You are most likely to encounter original material that requires citations in academic journals, such as for biology, chemistry, physics, psychology, sociology, history, etc. Sometimes you might come across original material in web-based articles and videos. This is especially the case if you are using [Google scholar](https://scholar.google.com/) as a search engine.  You are most likely to encounter material that is considered common knowledge, or common knowledge within the specialized field in one or more of the following:   * Encyclopedias, almanacs, dictionaries, general reference books, magazine articles, and how-to books * Reference books that relate to a specific discipline, specialized field, or trade * Web-based instructional articles and videos, especially when they relate to do-it-yourself projects, or formal or informal courses * General and elementary textbooks, and textbooks that relate to a specific discipline, specialized field, or trade   **Subtopic, Original Material Might Eventually Become Common Knowledge**  |||  Original material often becomes **common knowledge** over time. Similarly, technical, scientific, and other specialized material, might become **common knowledge within a specific field** over time. For example, if you were writing about airplanes in 1905, you would have to credit the Wright Brothers, because that was original material at that time. However, if you are writing about airplanes in 2016, you are dealing with common knowledge. If your document were technical, you would be dealing with **common knowledge within a specialized field**. In either case, you do **not** have to credit sources, assuming you are not paraphrasing or quoting.  **Subtopic, When Your Writing Contains Material That Does Not Require Citations, You Might Inadvertently Deceived Your Readers**  |||  When you are writing about material that does **not** require citations, your readers might think that the material you are writing about represents your original theories, concepts, or creations. This might confuse your readers, or may even give the impression that you are trying to deceive them. This is probably less likely to happen if your writing contains common knowledge, and more likely to happen if it contains common knowledge within a specialized field. This problem can be avoided with the ideas presented in the following three paragraphs.  One of the simplest ways of avoiding the problem described above is to use the conventional citation strategy. Another alternative is to refer your readers to relevant sources for additional and supporting information.  If your document contains original material that you devised, you should make it clear to your readers what statements in your document represent your original ideas, theories, or techniques. This will make it easier for the readers to become aware of the material that you did **not** create.  A good strategy that I often use, when dealing with ***common knowledge***, is to mention the name of the individual that created the theory, concept, or technique, without mentioning any published sources. This is convenient, when I did not use any published sources in the first place. For example, if I use to derive another equation, I state: with Einstein’s equation, , I derived the following formula, using the mathematical manipulations shown below.  **Subtopic, The School Environment, and Citation Requirements**  |||  Instructors, often devise their own rules for citation requirements. The rules can vary from one instructed to another, and even from one assignment to another, and they are usually focused on one citation style. If you are a student, you should obviously follow the rules provided by the instructors, for **school assignments.**  The most restrictive rules can require citations for almost every statement written by a student. This can be quite dysfunctional, and it can prevent students from using their creativity, knowledge, experience, and any academic expertise they may have obtained.  Some instructors, especially with essays, might allow students to use generally accepted rules and strategies used by professional writers and publishers. Rules of this nature do not require citations for common knowledge, if there is no paraphrasing or quoting involved. These rules should always be used outside of the school environment. This is because they allow the writer to exercise creativity, and pass on their knowledge and experience to their readers.  **Subtopic, Going Beyond Common Knowledge and Common Sense, to Write a Document, Solve a Problem, or Obtain a Goal**  |||  People frequently say use common sense, or that problem can be solved with common sense. Techniques 9 and 10 ultimately represent two categories of common sense, and two categories of common knowledge. New inventions, theories, concepts, ideas, and truly original writing are sometimes created with commonly used reasoning strategies and common knowledge. This usually represents the simplest and best **starting point** to write a document, solve a problem, or obtain a goal.  However, sometimes the simple strategies do not produce satisfactory results. When this is the case, try progressively more complex strategies, until you obtain success, or determine that the objective is not feasible.  Many of the techniques in this e-book go beyond simple common sense, such as experimentation, reasoning based on cause-and-effect, and inductive and deductive reasoning. *The ide****a*** *to keep in mind, is to use* ***whatever works well for you, and the people around you****,* ***in a specific situation****.*  **Additional, and Supporting Information from Web-Based Sources**  |||  [Video: Difference Between Common Sense and Science](https://www.youtube.com/watch?v=m-fbmDI1PtI)  [Video: common Sense Is Worthless in Science](https://www.youtube.com/watch?v=60uJ7sOx_1A)  [The limitations of common sense approach](http://www.thesynthesis.info/book/export/html/15)  [SCIENCE AND COMMONSENSE, Jon Ogborn, Institute of Physics, London](http://iupap-icpe.org/publications/teach2/Ogborn.pdf)  **Web-Based Articles for Additional and Supporting Information for the Material Presented in this Chapter**  |||  [Expert Opinion or Common Knowledge?](http://www.expertsdirect.com.au/blog/expert-opinion-or-common-knowledge/)  [COMMON LANGUAGE VERSUS SPECIALIZED LANGUAGE. Mariana Coancă](ftp://ftp.repec.org/opt/ReDIF/RePEc/rau/jisomg/SP11/JISOM-SP11-A22.pdf)  [Linking Specialized Knowledge and General, Knowledge in EcoLexicon, Pamela Faber, Antonio San Martín](http://lexicon.ugr.es/pdf/fab-lin.pdf)  [Specialized Discourse and Knowledge, Teun A. van Dijk](http://www.discursos.org/unpublished%20articles/SpecDis&Know.htm)  [The Dynamic Nature of Common Knowledge](http://quod.lib.umich.edu/cgi/t/text/text-idx?c=dcbooks;idno=5653382.0001.001;rgn=div2;view=text;cc=dcbooks;node=5653382.0001.001%3A3.3;xc=1;g=dculture)  [Franklin Style Manual, using APA style (6th ed.)](http://writing.franklin.edu/fsm/FranklinStyleManual.pdf)  ***If you want to go to chapter 12 of this e-book, left click on the following link:***  [***www.TechForText.com/DP/chapter-12***](http://www.TechForText.com/DP/chapter-12) |