



고려대학교  
정보대학

KCSE 2020 Tutorial

# Technical Writing in English

차성덕

고려대학교 정보대학



# My experience

- **KAI ST CS 790**
  - Technical Writing in Computer Science
    - 개설동기 및 현실적인 필요?
    - “영어 작문” 훈련? 또는 “논문 작성” 훈련?
- **Korea University AAA 554**



# Introduction

- **May not be easy first, but you surely can do it.**
- **Takes a lot of time and practice.**
- **Good learning resources available.**
  - I would rather trust “proven effective” source, not search engines
  - Published papers (e.g., ICSE, FSE, ASE, etc) may not necessarily be the best resources on learning technical writing skills
  - IEEE Software is highly recommended, though.
    1. Short. Max 8 pages.
    2. Highly relevant to software engineering.
    3. Edited by professional technical writers.



LIBERTAS  
JUSTITIA  
VERITAS

# Venado Middle School

A NATIONAL BLUE RIBBON SCHOOL

Dr. Julie Mitchell, Principal Mrs. Sally Klein, Assistant Principal

December 13, 2004

Dear Parents,

Beginning on Friday, December 14, 2004, your son/daughter will be involved in writing a research paper based on the following California English-Language Arts Standards:

## 2.3 Writing research reports:

- a. Define a thesis
- b. Record important ideas, concepts, and direct quotations from significant information sources and paraphrase and summarize all perspectives on the topic, as appropriate.
- c. Use a variety of primary and secondary sources and distinguish the nature and value of each.
- d. Organize and display information on charts, maps, and graphs.

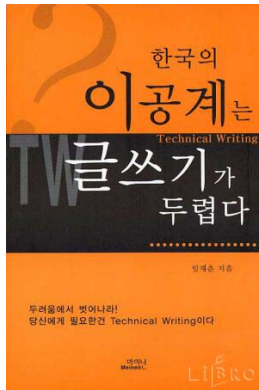
The topics for this report will be selected from the California History-Social Science Standards. Since this is a double-graded assignment, we would appreciate your support. Please use the calendar provided to check assignments and due dates your child will be required to follow. In addition, please sign the Individual Score Sheet for Rough Drafts to make sure all scores have been recorded for each assignment. Topics for this project will be selected prior to winter break. If time and opportunity are available, it would benefit your child to start gathering resources on his/her topic during this time. With our instruction at school and your reinforcement at home, your child will have a meaningful, learning experience.

**We will finish this project during January and February.**

Sincerely,

*Mrs. Dann*      *Mr. Walden*

Mrs. Dann and Mr. Walden



- 제1장 글 잘 쓰는 기술자가 성공한다
  - 업무의 50%는 글쓰기
  - 글쓰기가 경쟁력인 시대
  - 제대로 된 글쓰기 교육을 받은 적이 없다
- 제2장 읽는 사람을 고려한 글쓰기
  - 읽는 사람이 누구인가
  - 결재권자는 결론에 관심이 있다
  - 자기얘기를 장황설로 늘어놓지 말자
  - 어려운 전문용어, 역시 어렵다
  - 주어와 서술어의 거리는 짧을수록 좋다



- **제3장 논리적인 틀이 있는 글쓰기**
  - 주제는 명확하고 구체적으로
  - 주제는 하나여야 한다
  - 논리 개요도 작성하기
  - 문단, 하나의 소주제문과 이를 돕는 뒷받침 문장
    - Theme sentence
  - 효과적으로 배열하기
  - 문장끼리의 연관성을 놓치지 마라
  - 논리적 연결을 생각한다
- **제4장 간결하고 명확하게 쓰기 (KISS의 법칙)**
  - 핵심을 찌러라
  - 제목과 소제목에 핵심을 담자
  - 어려운 내용은 그림이나 도표로 보여주자
  - 모호한 것은 최악이다
  - 구체적인 수치로 표현한다
  - 명칭은 일관되게 써라



- 성공적인 부동산 투자의 3가지 조건?
- **500 words essays**
  - The most significant technical breakthrough in CS during the last five years...
  - Spam mails
  - Internet worms
- **1,000 words essay on “My research topic is ...”**
- 개별 면담



# The Element of Style



element of style



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About 559,000,000 results (0.67 seconds)

The **Elements of Style** is an American English writing **style** guide in numerous editions. The original was composed by William Strunk Jr. ... That was the first edition of the so-called Strunk & White, which Time named in 2011 as one of the 100 best and most influential books written in English since 1923.

**Author:** William Strunk Jr

**Original language:** English

[The Elements of Style - Wikipedia](#)

[https://en.wikipedia.org/wiki/The\\_Elements\\_of\\_Style](https://en.wikipedia.org/wiki/The_Elements_of_Style)



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**[PDF] The Elements of Style**

[www.jlakes.org](#) > [web](#) > [The-elements-of-style](#)

was a slim volume called **The Elements of Style**, whose author was the ... **The Elements of Style**, when I reexamined it in 1957, seemed to me to contain rich.

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The **Elements of Style** is an American English writing **style** guide in numerous editions. The original was composed by William Strunk Jr. ... That was the first edition of the so-called Strunk & White, which Time named in 2011 as one of the 100 best and most influential books written in English since 1923.

**Publisher:** Harcourt, Brace & Howe (1920); Ma... **Dewey Decimal:** 808/.042 21

**Illustrator:** Maira Kalman (2005 only) **Subject:** American English style guide

[History](#) · [Content](#) · [Reception](#) · [Editions](#)

[The Elements of Style: William Strunk Jr.: 9781945644016 ...](#)

<https://www.amazon.com/Elements-Style-William-Strunk-Jr>

The **Elements of Style** is the definitive text and classic manual on the principles of English language read by millions of readers. The 18 main topics are ...

## The Elements of Style

Book by William Strunk Jr.

Book preview  
20/66 pages available

PREVIEW



4.2/5  
Goodreads

4.3/5  
Barnes & Noble

79% liked this book

Google users



The Elements of Style is an American English writing style guide in numerous editions. The original was composed by William Strunk Jr. in 1918, and published by Harcourt in 1920, comprising eight ...  
[Wikipedia](#)

**Author:** William Strunk Jr.

**Pages:** 43 (1918), 52 (1920), 71 (1959), 105 (1999)

**Original language:** English

**Genre:** Reference work

**Page count:** 43

**Publishers:** Harcourt (1920), Macmillan Inc. (1959), Allyn & Bacon (1999)

### Rate and review



**Sungdeok Steve Cha**

Posting publicly.

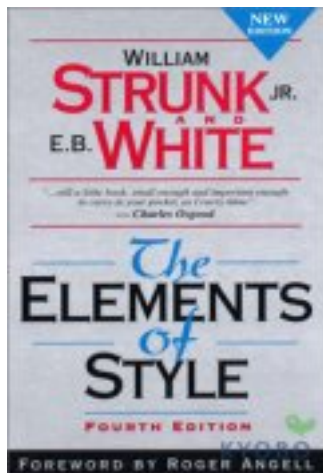


What do you think of this book?





- A true classic. An essential companion to writers. Natives and foreigners alike.



There were a great number of dead leaves lying on the ground.	Dead leaves covered the ground.
The sound of the falls could still be heard.	The sound of the falls still reached our ears.
The reason that he left college was that his health became impaired.	Failing health compelled him to leave college.
It was not long before he was very sorry that he had said what he had.	He soon repented his words.



# Never write papers without it!

## 9. The number of the subject determines the number of the verb.

Words that intervene between subject and verb do not affect the number of the verb.

The bittersweet flavor of youth — its trials, its joys, its adventures, its challenges — are not soon forgotten.

The bittersweet flavor of youth — its trials, its joys, its adventures, its challenges — is not soon forgotten.

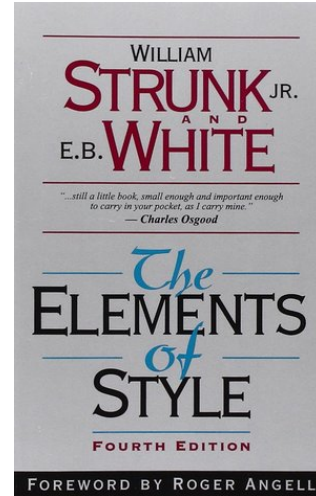
A common blunder is the use of a singular verb form in a relative clause following "one of..." or a similar expression when the relative is the subject.

One of the ablest scientists who has attacked this problem

One of the ablest scientists who have attacked this problem

One of those people who is never ready on time

One of those people who are never ready on time



Virgil Soames is the candidate whom we think will win.

Virgil Soames is the candidate who we think will win. [We think *he* will win.]

Virgil Soames is the candidate who we hope to elect.

Virgil Soames is the candidate whom we hope to elect. [We hope to elect *him*.]

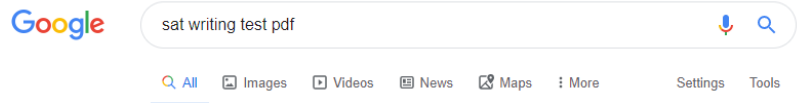
A pronoun in a comparison is nominative if it is the subject of a stated or understood verb.

Sandy writes better than I. (Than I write.)



# Yet another resource

- Frequently used by high school students in US
- Lots of sample tests are freely available



About 55,900,000 results (0.50 seconds)

**SAT Practice Test #1 - The College Board**

<https://collegereadiness.collegeboard.org/pdf/sat-practice-test-1>

College Board, SAT, and the acorn logo are registered trademarks of the ... Turn to **Section 1** of your answer sheet to answer the questions in this **section**.

**SAT Practice Test 1 Answer Explanations - The College Board**

<https://collegereadiness.collegeboard.org/pdf/sat-practice-test-1-answers>

... College Board and SAT are registered trademarks of the College Board. ... analytical **writing** as measured by standardized **test** scores." Choice.

**SAT Practice Test #8 - The College Board**

<https://collegereadiness.collegeboard.org/pdf/sat-practice-test-8>

Turn to **Section 1** of your answer sheet to answer the questions in this **section**. ... Improves the quality of **writing** in the passage or that makes the passage ...

**SAT Writing Practice - Ivy Global / Practice Tests**

[https://prep.ivyglobal.com/new\\_sat\\_writing](https://prep.ivyglobal.com/new_sat_writing)

The **SAT Writing Test** is made up of four passages and 44 multiple choice questions. You will ... Key Changes: CollegeBoard's Command of Evidence (**PDF**).

**Magoosh SAT Practice Test PDF - AWS**

<https://magoosh-production.s3.amazonaws.com/assets/originals>

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**Printable SAT Practice Tests PDFs: 18 FREE Official Tests**

<https://blog.prepscholar.com/printable-sat-practice-tests-4-free-official-tests>

Sep 29, 2019 - These next **tests** follow the old 2400 format of the **SAT**, with separate Critical Reading, Math, and **Writing** sections. (By contrast, on the current ...

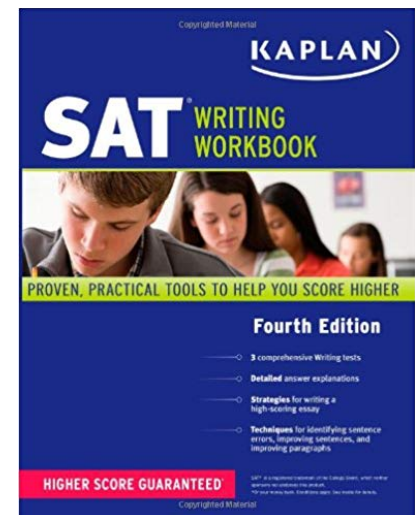
## 2

### Writing and Language Test

35 MINUTES, 44 QUESTIONS

Turn to **Section 2** of your answer sheet to answer the questions in this section.

#### DIRECTIONS





Questions 1-11 are based on the following passage.

### Whey to Go

Greek yogurt—a strained form of cultured yogurt—has grown enormously in popularity in the United States since it was first introduced in the country in the late 1980s.

From 2011 to 2012 alone, sales of Greek yogurt in the US increased by 50 percent. The resulting increase in Greek yogurt production has forced those involved in the business to address the detrimental effects that the yogurt-making process may be having on the environment. Fortunately, farmers and others in the

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## Section 2: Writing and Language Test

### QUESTION 1

**Choice D is the best answer** because “outweigh” is the only choice that appropriately reflects the relationship the sentence sets up between “advantages” and “drawbacks.”

Choices A, B, and C are incorrect because each implies a competitive relationship that is inappropriate in this context.

2

2

Greek yogurt business have found many methods of controlling and eliminating most environmental threats. Given these solutions as well as the many health benefits of the food, the advantages of Greek yogurt **1** outdo the potential drawbacks of its production.

1

- A) NO CHANGE
- B) defeat
- C) outperform
- D) outweigh

# WRITING TEST

## Part B

Time — 40 minutes

**Directions:** The following sentences test your knowledge of grammar, usage, diction (choice of words), and idiom.

Some sentences are correct.

No sentence contains more than one error.

You will find that the error, if there is one, is underlined and lettered. Elements of the sentence that are not underlined will not be changed. In choosing answers, follow the requirements of standard written English.

If there is an error, select the one underlined part that must be changed to make the sentence correct and fill in the corresponding oval on your answer sheet.

If there is no answer, fill in answer oval **(E)**.

EXAMPLE:

The other delegates and him immediately

A B C

accepted the resolution drafted by the

D

neutral states. No error

E

SAMPLE ANSWER:

(A) ● (C) (D) (E)

- Kristine was soon to learn that she could make herself  
A B  
understood more easily by speaking French and not by  
C D  
writing it. No error  
E
- Although reducing taxes may seem like an attractive  
A B  
proposition, they may impair the county's ability to  
C  
maintain services that all of us depend on. No error  
D E
- Devoid of ornament, the buildings of Mies van der Rohe  
A B  
depends on subtlety of proportion and mechanical  
C  
excellence. No error  
D E
- Exceeding a weight of six pounds, Camilla's baby was  
A B  
the larger of the triplets. No error  
C D E



## 62 • Identifying Sentence Errors

2. (C)

### *Pronoun Agreement*

Always check the pronouns in a sentence. You may have an error of agreement (singular/plural) or case (subject/object). In this sentence, *they* modifies *reducing taxes*, which is a single activity. The question tries to confuse you by using the plural word *taxes*. But the sentence says that it is the act of *reducing taxes* that might harm the country, so you need to change the plural pronoun *their* to the singular *its*.

3. (D)

### *Double Negative*

An alarm bell should go off whenever you see words like *scarcely* and *hardly*. Used on their own they're fine, but when they are placed next to other negative words like *no*, they become double negatives. The sentence should read *scarcely any*.

4. (C)

### *Subject-Verb Agreement*

*Buildings* is a plural noun; *depends* is a singular verb. If you're feeling nervous on test day, you might forget that putting an *s* on the end of a verb doesn't make the word plural. A slip of the eye can lead to this mistake, so check your subjects and verbs every time.

5. (C)

### *Adverb*

When comparing two objects, you should use a word ending in *-er*, also known as a comparative modifier. When you compare three or more objects, you need to use a word ending in *-est*, a superlative modifier. As a triplet, the baby is the *largest* of the three, not the *larger*.

6. (B)

### *Pronoun*

Family and friends are people; therefore, *who* should replace *which*. *Who* is a pronoun used as a replacement for people, while *which* is a stand-in for things.

7. (A)

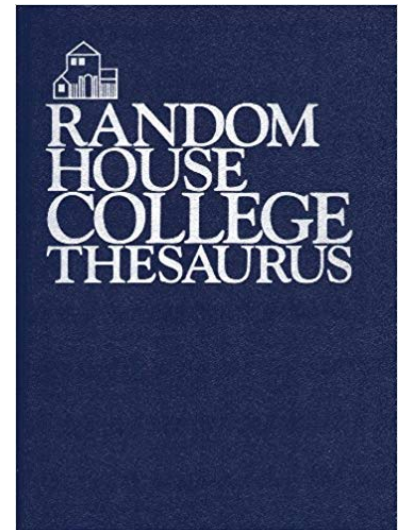
### *Wrong Word*

*Torturous* and *tortuous* mean two different things. *Torturous* describes something that causes torture, while *tortuous* means winding and circuitous. Getting dropped from the highest peak in the Swiss Alps would be *torturous*; the winding Swiss roads are *tortuous*.



# Thesaurus: Another

- **“아 vs 어” in English**
  - Selection of proper word makes a big difference
- **Use the one which includes (perfect) sample sentences**





slip, slip sideways, sideslip, guess, guesswork, 1 skate, ski, skim, skitter, coast.

**skill** *n.* 1 *The antique cabinet had been made with great skill:* skillfulness, craft, adroitness, adeptness, expertness, deftness, dexterity, handiness, mastery, competence, artistry; acumen, cunning, cleverness, ingenuity, inventiveness. 2 *Do you have the skill to ski such a difficult slope?:* ability, capacity, prowess, faculty, facility, proficiency, experience, knowhow, expertise, knack; talent, gift.

**Ant.** 1 incompetence, ineptness, ineptitude, awkwardness, clumsiness. 2 inability, nonproficiency, inexperience.

**skillful** *adj.* *Only the most skillful pilots are employed by airlines. The bricklayer did a skillful job in building the wall.* skilled, expert, able, competent, capable, proficient, qualified, accomplished, professional, masterful, masterly, experienced, veteran, practiced, trained, well-versed; apt, adept, adroit, dexterous, handy, facile, deft, talented, gifted, ingenious, clever, sharp, keen, cunning, slick.

**Ant.** unskillful, unskilled, inexpert, inept, incompetent, unqualified, unaccomplished, non-professional, amateurish, inexperienced, unpracticed, untrained; unqualified; clumsy, awkward, bungling.

**skim** *v.* 1 *Skim the cream off the top of the milk:* take up from the surface, scrape, skim. 2 *The*



expertise: noun Video pronunciation

Synonyms of 'skill'

**skill**

Explore 'skill' in the dictionary

(noun) In the sense of expertise

Definition

special ability or expertise enabling one to perform an activity very well

*The cut of a diamond depends on*

Synonyms

- expertise
- ability
- proficiency
- experience
- art
- technique
- facility
- talent
- intelligence
- craft
- competence
- readiness
- accomplishment
- knack
- ingenuity
- finesse
- aptitude
- dexterity
- cleverness
- quickness
- adroitness
- expertness
- handiness
- skillfulness

See examples for synonyms

Opposites

- inability
- incompetence
- inept
- cack-handedness, lack of finesse,

(noun) in the sense of expertise

Definition

special ability or expertise enabling one to perform an activity very well

*The cut of a diamond depends on the skill of its craftsman.*

Synonyms

expertise

*the lack of management expertise within the company*

ability

*Her drama teacher spotted her ability.*

proficiency

*Evidence of basic proficiency in English is required.*

experience

art

*the art of romance*

technique

*He went abroad to improve his tennis technique.*

facility

*They shared a facility for languages.*

talent

*Both her children have a talent for music.*

intelligence

craft

*Lilyanne learned her craft of cooking from her grandmother.*

competence

*I regard her as a woman of integrity and high professional competence.*

readiness

*the warmth of his personality and the readiness of his wit*

accomplishment

*She can now add basketball to her list of accomplishments.*

knack

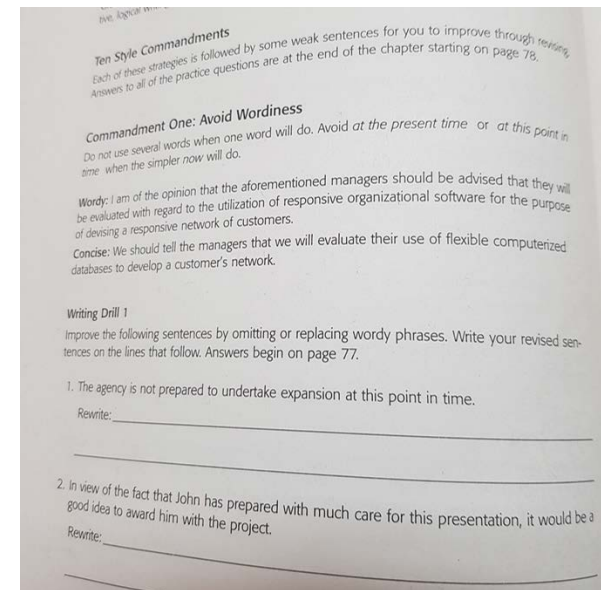
*He's got the knack of getting people to listen.*





# Ten Style Commandments

1. Avoid wordiness
2. Don't be redundant over and over again
3. Avoid needless qualification
4. Don't write just to fill up space
5. Avoid needless self-reference
6. Use the active voice
7. Avoid weak openings
8. Don't be vague
9. Avoid clichés
10. Avoid jargon





# Avoid wordiness

- The agency is not prepared to undertake expansion at this point in time
- In view of the fact that John has prepared with much care for this presentation, it would be a good idea to award him with the project.



# Be Concise (or Cut the Fat)

The reason why humans kill each other is that they experience fear of those whom they do not understand.

Humans kill each other because they fear those whom they do not understand.

Avoid wordiness

He knows how to follow directions and he knows how to do what he is told.

He knows how to follow direction.

Don't Be Redundant



The president perhaps should use a certain amount of diplomacy before he resorts to force.

The president should use diplomacy before he resorts to force.

Avoid Needless Qualification

A lot of people find math a difficult subject to master. They have trouble with math because it requires very precise thinking skills.

A lot of people find math a difficult subject because it requires very precise thinking skills.

Don't Write Sentences Just to Fill Up Space



# Be Forceful/ Take a Stand

I must emphasize that I am not saying the author does not have a point.

The author has a point

Avoid Needless Self-Reference

The bill was passed in time, but it was not signed by the president until the time for action had passed.

Congress passed the bill in time, but the President did not sign it until the time for action had passed.

Use the Active Voice



They are several reasons why this product is obsolete.

This product is obsolete for several reasons.

Avoid Weak Openings

The secretary was unable to complete the task that had been assigned.

The secretary was unable to type the document.

Avoid Needlessly Vague Language



Older doctors should be required to update their techniques, but you can't teach an old dog new tricks.

Older doctors should be required to update their techniques, but many seem resistant to changes in technology.

Avoid Cliches\*

There is considerable evidentiary support for assertion that Vienna sausages are good for you.

Recent studies suggest that Vienna sausages are good for you.

Avoid Jargon

\* Overused expressions, expressions that may once have seemed colorful and powerful but are now dull and worn-out.

# Be Correct (or Follow the Rules)

Pay attention to Subject-Verb Agreement

Tom said in the car he had a map of New Jersey.

Tom said he had a map of New Jersey in the car.

Use modifiers correctly

The teacher told the student he was lazy.

Use Pronouns correctly





All students should learn word processing, accounting, and how to program computers.

All students should learn word processing, accounting, and computer programming.

Pay attention to Parallelism

Use Commas, semicolons, colons, hyphens, dashes, and Apostrophes Correctly



# Be Polished (or Attend to Details)

Joan has been doing science for eight years now.

Joan has been a scientist for eight years now.

Avoid Slang and Colloquialisms

Seattle is a wonderful place to live. Having mountains, ocean, and forests all within easy driving distance. If you can ignore the rain.

Seattle is a wonderful place to live, with mountains, ocean, and forests all within easy driving distance. However, it certainly does rain often.

Watch out for Sentence Fragments and Run-On Sentences



# Getting the Mechanics of Writing Right

1. Avoid slang and colloquialisms
2. Avoid sentence fragments and run-on sentences
3. Use commas correctly
4. Use semicolons correctly
5. Use colons correctly
6. Use hyphens and dashes correctly
7. Use apostrophes correctly
8. Pay attention to subject-verb agreement
9. Use modifiers correctly
10. Use pronouns correctly
11. Pay attention to parallelism
12. Don't shift narrative voice





# Practice never betrays

- **Bad News: Practice does not necessarily make one perfect.**
- **Good News: Practice certainly can make one a good enough communicator.**
- **Suggested Approaches**
  - Learn from good examples
  - Learn from “good” bad examples

