Duke, Exercise 1, Principles:

- 1. Put actions in verbs
- 2. Put characters in subjects
- 3. Keep subjects near verbs

Principle 1: Put actions in verbs

Action	Nominalization
to regulate	regulation
to analyze	analysis
to occur	occurance
to understand	understanding
to investigate	investigation
to delineate	deliniation
to perform	performance

We performed an analysis on the data

⇒ We analyzed the data

Verbs should be actions!

Principle 2: Put characters in subjects

You can fulfill reader expectations by maintaining a logical flow of grammatical subjects in a paragraph. There are two primary ways to accomplish this:

1. Maintain a common subject throughout a one-topic paragraph (parallel sentence structure)

2. Shift the subject smoothly according to the story

Principle 3: Keep subjects near verbs

A sentence tells readers: who and what action

The sentence will be straightforward to understand when the subject and verb are close to each other

- The ABC database has been subject to different improvements, modifications, and extensions in structure and content over the years.
- ⇒ The ABC database has been improved, modified, and extended in both structure and content over the years. (passive)
- ⇒ The curators have improved the structure and content of the ABC database. (active)

Duke Lesson II: Cohesion, coherence, and emphasis

- Principle 1: Put new information last
- Principle 2: Use passive voice rarely
- Principle 3: Make sure the first and last sentences of a paragraph match

(sometimes? I'm not sure I like this one)

 Match the last sentence of the previous paragraph with the first sentence of the next paragraph = more important for smooth transition

Principle 1: Put new information last

- Most readers will find your writing more clear if you consistently begin sentences with familiar (old) information and conclude sentences with unfamiliar (new) information
- What happens when you begin a sentence with new information?
 Your reader gets a new idea without any context. He or she may try
 (incorrectly) to link this information to the previous sentence. After
 reading the rest of the sentence, the reader may have to revise his
 or her understanding.
- Think of this in the same way as writing your introduction: the very first sentence is something that all of your readers will know
 - Provides readers with something familiar to start the paper

Principle 1: Put new information last

- Revision technique: Read through your manuscript carefully. In each sentence, underline any pieces of new information (unfamiliar to the reader at this point in the manuscript). Make sure your sentences begin with an appropriate backwards link, and not with an unfamiliar concept.
 - Underlining is a useful tool for many things
 - Go through manuscript, underline noun/verb to make sure they match

Principle 2: Use passive voice rarely

Active: The dog chased the ball.

Passive: The ball was chased by the dog.

Passive: The ball was chased.

Active: more straightforward. Subject does an action.

US scientists *hate* passive voice. UK scientists rely much more heavily on passive voice.

Also avoid excessive use of "we" (let science be the subject)

Let the science be the subject!

Editing technique: underline all "we"; at most one "we" per paragraph

Underline the noun and verb. Is the verb active? Is the subject noun doing the verb.

When to use passive voice

- When you want to say something indirectly
 - Sometimes it's more polite
 - Speculation can be passive

Basic premise: be direct and simple

- (almost) always be direct and simple.
- Say what you mean

Principle 3: Make sure the first and last sentences of a paragraph match

 Match adjacent sentences, especially when moving from one paragraph to another.

Duke Lesson 3: Concision and Simplicity

- Omit needless words (excessive hedging, ineffectual phrases)
- Prefer simple words
- Use simple subjects
- Use adjectives/adverbs frugally (=rarely)

Principle 3: Make sure the first and last sentences of a paragraph match

- Skipping this one...
- Match adjacent sentences, especially when moving from one paragraph to another.

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Omit needless words

- Phrases to avoid:
 - Note that
 - It should be noted that
 - Respectively
 - It is important to realize/it is well known
 - So-called

Omit words that stress how good your analysis is!

- "carefully": is it really?
 - If you describe details, I understand the care
- Figure 3 clearly shows: is it really?
 - If the Figure is clear, you don't need to insist
- Proven, doubtless

These words are "red flags" for me

Elements of Style

Instead of	Consider
×	
the question as to whether	whether
there is no doubt but that	doubtless
used for fuel purposes	used for fuel
in a careful manner	carefully
this is a subject that	this subject

Instead of	Consider
×	
a large majority of	most
has the capacity to	can
whether or not	whether
are in agreement	agree
prior to	before
subsequent to	after
at this point in time	now
due to the fact that	because
in the event that	if
a new initiative	an initiative
nearly unique	unique/rare
plays a key role in	is essential to
both cultures were equally affected	the cultures were equally affected

Prefer simple words

Word Complexity

Instead of	Consider
elucidate	show
putative	(nothing)
methodology	method
utilize	use
etiology	cause

Prefer simple subjects



The sequences that had passed our filtering, trimming, and alignment with ClustalX, were scanned for conserved elements across mammals.

The sequences were trimmed, filered, and aligned with ClustalX. The resulting alignments were scanned for conserved elements across mammals.

Use few adjectives/adverbs

- "Very" is very overused
 - Especially for Chinese writers
- "very interesting", "very important"
- "extremely"