

Revising top-heavy sentences

Revise the following top-heavy sentences to satisfy the light-before-heavy principle.

1. Chemical processes from fossil fuels, hydrolysis of water with oxygen as a by-product, or thermal decomposition **can produce** hydrogen.

Hydrogen **can be produced by** chemical processes from fossil fuels, hydrolysis of water with oxygen as a by-product, or thermal decomposition.

Strategy: 1. Active-Passive Shift

2. To overcome these limitations, an automated test system capable of flexibly handling a wide variety of test conditions **was developed**.

To overcome these limitations, **this study developed** an automated test system capable of flexibly handling a wide variety of test conditions.

Strategy: 3. Animate-Inanimate Shift

To overcome these limitations, **we developed** an automated test system ...

Strategy: 4. Personal-Impersonal Shift (←justifying choices)

These limitations **were overcome by developing** an automated test system ...

Strategy: 5. Means-Purpose shift

3. Using our methodology, these disrupting interactions between the different layers of circuit component materials **can be** easily **detected**.

Our methodology **can** automatically and compositionally **detect** these interactions.

Our methodology **can be used to detect** automatically and compositionally these interactions.

Our methodology **can be used for** the automatic and compositional detection **of** these interactions.

Strategy: 5. Means-Purpose shift

These interactions **can be automatically detected** using our methodology.

Strategy: 13. Reorder clauses

4. The effect of these spectral modifications on speech quality as well as on speech intelligibility **is investigated**.

We **investigate** ...

In this paper, we **investigate** ...

Strategy: 4. Personal-Impersonal Shift (←justifying choices)

This paper **investigates** ...

Strategy: 14. Default subject

5. The spectral modification introduced by the two procedures used in this study, differentiation and formant equalization, **are shown** in Figure 1.

Figure 1 **shows** the spectral modification introduced by the two procedures used in this study, differentiation and formant equalization.

Strategy: 1. Passive-Active Alternation

6. Further work is required **so that** superconductive applications that can reliably use alternating current **can be developed**.

Further work is required (in order) **to develop** safety standards regarding the storage and recycling of spent nuclear waste.

Strategy: 9. so that → to infinitive

7. In the present paper, a theoretical framework *that can be used* to analyze potential factors *that influence* the intelligibility of processed speech **is presented**.

In this paper, a theoretical framework **is presented** that can be used to analyze potential factors **influencing** the intelligibility of processed speech.

Strategy: 10. Split relative clause

In this paper, we **present** a theoretical framework that can be used to analyze potential factors **influencing** the intelligibility of processed speech.

Strategy: 4. Personal-Impersonal Shift

This paper **presents** a theoretical framework that can be used to analyze potential factors **influencing** the intelligibility of processed speech.

Strategy: 3. Animate-Inanimate Shift

8. The fact that LED brake lights improve highway safety by giving drivers 0.5 seconds more time to react than conventional lights **has been reported**.

Numerous studies **have reported** that LED brake lights improve highway safety by giving drivers 0.5 seconds more time to react than conventional lights [1-5].

Strategy: 14. Default subject

It has been reported that LED brake lights improve highway safety by giving drivers 0.5 seconds more time to react than conventional lights [1-5].

Strategy: 6. dummy it

9. The process in which two or more items (usually metal) are joined together by melting and putting a filler metal into the joint is known as soldering.

Soldering is a process in which two or more items (usually metal) are joined together by melting and putting a filler metal into the joint.

Strategy: 2. Equative shift

10. The surfaces of solder joints **slide** relative to one another during thermal cycling **so that** electrical transients that are typically of short duration **are produced**.

The surfaces of solder joints **slide** relative to one another during thermal cycling, **producing** electrical transients that are typically of short duration.

Strategy: 8. Resultative –ing clause

11. It is hypothesized that **if** these distortions **are properly controlled**, **then** large gains in intelligibility **can be achieved**.

It is hypothesized that **proper controlling of** these distortions **allows** for large gains in intelligibility.

It is hypothesized that **proper controlling of** these distortions **may result in/yield** large gains in intelligibility.

Strategy: 11. Nominalization

Hypothetically, large gains in intelligibility **can be achieved** by proper controlling of these distortions.

12. Two procedures for improving the intelligibility of wideband telephone speech in the presence of competing babble noise **are evaluated**.

This paper **evaluates** two procedures for improving the intelligibility of wideband telephone speech in the presence of competing babble noise.

Strategy: 14. Default subject

13. The groundwork for an understanding of the reliability issues of LEDs across the supply chain **is provided** in this paper.

This paper **provides** the groundwork for an understanding of the reliability issues of LEDs across the supply chain.

Strategy: 3. Animate-Inanimate Shift

14. The construction details and fabrication steps of LEDs as they relate to failure mechanisms and reliability **are discussed** next.

The next section **discusses** the construction details and fabrication steps of LEDs as they relate to failure mechanisms and reliability.

Strategy: 14. Default subject

Next, we **discuss** ...

Next, this paper **discusses** ...