

Writing in the Sciences - Week 1: Introduction; principles of effective writing

介绍

- 好文章的标准是什么？
 1. 好的文章表达想法非常简洁与有效
 - 这需要有可以说的东西以及清晰的想法
 2. 好文章的写作风格是优雅和时髦的
 - 这需要时间以及大量的修改
 - 很多作者往往过分关注第二点而忽视了第一点
- 好作者的标准是什么？
 1. 有东西可说
 2. 逻辑性思考
 3. 了解一些简单的、可以学习的写作规则（本课程学习）
- 本课程的主旨
 - 复杂的想法并不需要复杂的语言
 - 科学写作阅读起来应该是容易甚至享受的

高效写作的原则

- 高效写作需要遵循以下原则
 1. **去除杂乱**（不必要的单词和短语）
 2. **使用主动语态**
 3. **用动词写作**：
 - 使用强动词
 - 避免将动词变成名词
 - 不要将主要动词埋藏在句子中

去除杂乱

- 常见的杂乱（clutter）包括：
 1. 累赘的单词或短语
 - As it is well known
 2. 没有具体含义的单词或短语
 - basic tenets of
 3. 可以被缩短的长单词或短语
 - muscular and cardiorespiratory performance
 4. 没有必要的专业术语和缩写词
 - miR

5. 重复的单词或短语

- studies/examples

6. 副词

- very, really, quite, etc.

- 这些杂乱都与要表达的想法无关，所以应该去除
- 除了上述所说，下面还有几个关于去除杂乱的技巧：
 - 尽量消除否定
 - 尽量消除 there are/there is
 - 省略不需要的介词
 - The meeting happened ~~on~~ Monday.
 - They agreed ~~that~~ it was true.

案例

- Anti-inflammatory drugs may be protective for the occurrence of Alzheimer's Disease.
 - **Anti-inflammatory drugs may protect against Alzheimer's Disease.**
- Clinical seizures have been estimated to occur in 0.5% to 2.3% of the neonatal population.
 - **Clinical seizures occur in 0.5% to 2.3% of newborns.**
- As we can see from Figure 2, if the return kinetic energy is less than 3.2 Up, there will be two electron trajectories associated with this kinetic energy.
 - **Figure 2 shows that a return kinetic energy less than 3.2 Up yields two electron trajectories.**

作业

- Give a five-letter word that means the same thing as: "has no".
 - lacks
- Many women with BRCA mutations take prophylactic steps towards reducing their risk of ever getting the cancer because early detection is not perfect.
 - **Many women with BRCA mutations opt for prophylaxis, because early detection is imperfect.**