

### Axis 3: Academic Writing in Sports Sciences

#### Lecture 3.1: Constructing the Research Argument

Writing in sports science is not about storytelling; it is about building a logical argument based on evidence. This lecture focuses on the specific linguistic features of academic writing.

##### 3.1.1 Objectivity and the Passive Voice Debate

Historically, scientific writing exclusively used the **passive voice** ("The data were analyzed") to remove the researcher from the text and maintain objectivity.

- *Current Trend:* Modern style guides (like APA 7) and many journals now accept or even encourage the **active voice** ("We analyzed the data") for clarity and conciseness.
- *Guideline:* Students should check the specific journal guidelines. If unsure, the passive voice remains the safer, more traditional choice for the Methodology section, while the active voice is effective in the Discussion.<sup>15</sup>

##### 3.1.2 Hedging (Cautious Language)

In academic English, absolute statements are rare. Researchers use "hedging" to express caution.

- *Absolute (Avoid):* "Creatine causes increased muscle mass." (Too strong; implies 100% certainty).
- *Hedged (Preferred):* "Creatine supplementation **appears to** facilitate increased muscle mass." or "Evidence **suggests** that..." or "These findings **indicate** a possible relationship..."
- *Common Hedges:* may, might, could, likely, possibly, seemingly, tend to.<sup>23</sup>

##### 3.1.3 Cohesion and Flow

Linking words (transition signals) are the glue of academic writing.

- **Addition:** Furthermore, Moreover, In addition, Additionally.
- **Contrast:** However, Conversely, On the other hand, In contrast, Despite this.
- **Causality:** Consequently, Therefore, Thus, As a result, Hence.
- **Example:** For instance, Specifically, Notably, To illustrate.
- *Practice:* Students should practice rewriting choppy sentences using these transitions to create a smooth narrative flow.<sup>23</sup>

## Lecture 3.2: Precision in Methodology and Reporting Results

### 3.2.1 Writing the Methodology

The methodology is almost always written in the **simple past tense** because the actions are completed.

- *Structure:*
  1. **Participants:** "Twenty elite male cyclists volunteered..."
  2. **Design:** "A randomized, counterbalanced, crossover design was employed..."
  3. **Procedures:** "Participants visited the laboratory on three separate occasions..."
  4. **Statistical Analyses:** "Data were analyzed using SPSS version 25.0..."<sup>15</sup>

### 3.2.2 Reporting Results

The Results section should be purely objective. It presents the data without interpretation.

- *Visuals:* Use tables and figures effectively. "Table 1 shows the pre- and post-test values..."
- *The Language of Comparison:*
  - "There was a **significant increase** in..."
  - "No **significant difference** was observed between..."
  - "Correlation analysis revealed a **strong positive relationship** ( $r = 0.85$ ) between..."
- *Avoid:* Avoid discussing *why* the results happened here. Save that for the Discussion.<sup>23</sup>

## Lecture 3.3: The Art of the Discussion, Abstract, and Title

### 3.3.1 The Abstract

The abstract is the most read part of a paper. It must be a concise summary.

- **Structured Abstracts:** Common in sports science (e.g., *Journal of Strength and Conditioning Research*). They use explicit headings: *Purpose, Methods, Results, Conclusion*.
- **Unstructured Abstracts:** A single paragraph flowing through the same logic without headings.
- **Key Content:**
  - Context (1 sentence).

- Purpose (1 sentence).
- Methods (2-3 sentences).
- Results (Specific data points, p-values, effect sizes).
- Conclusion/Application (1-2 sentences).<sup>24</sup>

### 3.3.2 The Discussion Section

This is where the "story" of the data is told.

- **Interpret:** "This finding suggests that..."
- **Compare:** "These results are consistent with previous findings by Smith (2019)..." or "In contrast to Jones (2020), we found..."
- **Explain:** "A possible physiological mechanism for this improvement is..."
- **Limit:** "A limitation of this study was the small sample size..."
- **Conclude:** "Practically, coaches should implement..."<sup>12</sup>

### 3.3.3 Literature Review and Citation

A literature review is not a list; it is a synthesis.

- *Poor:* "Author A said X. Author B said Y."
  - *Good:* "While Author A (2018) argued X, Author B (2019) presented conflicting evidence suggesting Y, indicating a need for further investigation."
  - *Citation Styles:* Students must master styles like APA (Author, Date) or Vancouver (Numbered). *Journal of Strength and Conditioning Research* often uses a specific numbered alphabetical style.<sup>26</sup>
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