



# Text Complexity Analysis of

Research Spotlights a Previously Unknown Microbial ‘Drama’ Playing in the Southern Ocean (*title*)

NSF (*author*)

**Recommended Complexity Band: 11-12**

## Qualitative Measures

**Meaning/Purpose:** (*Briefly explain the levels of meaning (Literary Text) or purpose (Informational Text.)*) The purpose of the article can be identified through the title and subtitle of the text, although the subtitle explains more about the discovery while the title is used more as a hook to capture readers’ attention. The author’s purpose is to provide information on the discovery of microbial interactions found at the base of the food web in the Southern Ocean off of Antarctica.

**Text Structure:** (*Briefly describe the structure, organization, and other features of the text.*) The text does not have subheadings. The text has a mostly descriptive text structure, presented as three different sections. The first section discusses information already known, the second section discusses the implications of the new discovery, and the third section describes the actual findings

**Language Features:** (*Briefly describe the conventions and clarity of the language used in the text, including the complexity of the vocabulary and sentence structures.*) The text uses a number of domain-specific words (phytoplankton, food webs, competition) but some are defined in the text or are easy to decipher through context clues such as phytoplankton. Many compound and complex sentence structures are used.

**Knowledge Demands:** (*Briefly describe the knowledge demands the text requires of students.*) Students should have a general understanding of oceanic food chains or webs and should understand that phytoplankton is at the base of them. Students should be familiar with the process of photosynthesis.

## Text Description

**Briefly describe the text:** This informational text is intended to support reading in the content area. The article discusses the relationship between phytoplankton and different bacteria in the Southern Ocean. The text goes on to describe the results and how they changed previous ideas and assumptions about the needs of phytoplankton.

## Quantitative Measures

**Complexity Band Level (provide range):** Above 11-12

The text falls above the 11-12 grade band according to a quantitative reading measure.

## Considerations for Reader and Task

Below are factors to consider with respect to the reader and task.

### **Potential Challenges this Text Poses:**

Prior to reading the article, the teacher should go over with students the basics of photosynthesis so they recognize that phytoplankton are the producers in ocean food webs and food chains. The review does not need to be in-depth for students to acquire a general understanding of the main points in the article. The teacher may also wish to discuss limiting factors on populations.

## Recommended Placement

**Briefly explain the recommended placement of the text in a particular grade band:** This lesson is recommended for the 11-12 grade level band due to its high quantitative score and the amount of domain-specific vocabulary. Students reading at grade level should find the text appropriately challenging.