

ASSESSMENT OF REFERENCES TO AGRICULTURE IN A MIDDLE GRADE SCIENCE TEXTBOOK

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ABSTRACT

The central purpose of this study was to assess the degree of bias toward agriculture within a middle grade science textbook. Literary formats used to reference agriculture within the text were also assessed.

A content analysis was used to identify all references to agriculture within the textbook. All references were categorized according to the agricultural literacy areas as defined by Frick, Birkenholz, and Machtmes (1995). Subsequently, all text references were then analyzed for bias using the Lowry-Hayakawa news bias categories. Text references were coded as reports, inferences, judgments, and others and were assigned a numerical score based on the assigned code. This allowed an overall bias score of the textbook, in regards to text references to agriculture, to be established.

A total of 265 references to agriculture were found within the textbook. One hundred fifty-one were text, 82 were pictures/diagrams, ten were unit background information, eight were student activities, eight were assessment components, and six were auxiliary materials. An overall bias score of 1.13 was determined.

The following conclusions were drawn upon completion of this study.

a) Within the examined textbook, science students are exposed to agriculture on average once every three pages. b) Written text, pictures and diagrams are the most common formats used to reference agriculture. c) The agricultural references tend to focus on plants, processing agricultural products, and agriculture's effect on the environment. d) Text references were mostly reports in nature. e) The textbook is generally unbiased in its portrayal of agricultural concepts.