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ABSTRACT

Designed to measure the effect of context on the ability of students to interpret structurally ambiguous sentences, this test consists of 20 items, ten of which are based on the surface structure ambiguities of the Sentence Interpretation Test (SIT). The criteria established for the construction of the Contextual Ambiguity Test (CAT) included item selection from the SIT, one sentence embedded in one paragraph to limit alternative interpretations, selection of vocabulary judged as grade 5 or below, paragraphs which stimulated naturally occurring reading situations, a consistent paragraph length of about sixty words, a strictly adhered to test format, and submission of the test to two groups of people. [This document is one of those reviewed in The Research Instruments Project (TRIP) monograph "Measures for Research and Evaluation in the English Language Arts" to be published by the Committee on Research of the National Council of Teachers of English in cooperation with the ERIC Clearinghouse on Reading and Communication Skills. A TRIP review which precedes the document lists its category (Reading), title, author, date, and age range (intermediate, junior high), and describes the instrument's purpose and physical characteristics.]

(RB)

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The Research Instruments Project (TRIP)

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CS 20/322

Category: Reading

Title: The Contextual Ambiguity Test (CAT)

Author: Mikell Montague

Age Range: Intermediate - Junior High

Description of the Instrument:

Purpose - to measure the effect of context on the ability of students to disambiguate structurally ambiguous sentences.

Date of Construction - 1973

Physical Description - This test consists of twenty items, ten of which are based on the surface structure ambiguities of the Sentence Interpretation Test (SIT) - see Little. The following criteria were established for the construction of the CAT: (1) Item Selection - The Twenty ambiguous sentences from the SIT would be used in their exact form, in order to minimize the effect of the lexical items. (2) Ambiguous Meaning - Each sentence would be embedded in one paragraph which constrained the meaning so that only one of the possible interpretative paraphrases would hold true. (3) Vocabulary - The vocabulary level of the lexical items of the paragraph would be controlled so that only words listed in Carroll's (1971) Word Frequency Book as occurring in reading material of grade five students or below were used. (4) Natural Situation - In order for the paragraphs to stimulate naturally-occurring reading situations, the ambiguous sentences in many cases became clauses in longer sentences. However, every effort was made to minimize the use of syntactic structures which, according to Robertson (1966) and Fagan (1970), hinder reading comprehension, while at the same time striving for the most natural-sounding diction. In addition, the position of the ambiguous

sentence within the paragraph was varied so that a set for the ambiguous sentence in a certain position would not be established. (5) Paragraph Length - To be sure that unequal length of paragraphs did not bias the person taking the test, it was decided that a consistent paragraph length of sixty, plus or minus ten, would be maintained. This length was sufficient for providing natural-sounding contextual situations for each ambiguous sentence while at the same time the total length of the test was reasonable for completion within a thirty minute period. (6) Test Format - Following the directions for and an example of the test, the items would be presented so that the previously ambiguous sentence was underlined, followed by the same interpretative sentences which occurred in the SIT. Two test items would appear on a page, so that no item would be divided between two pages. (7) Grammatical and Semantic Acceptability and Effectiveness of Constraints on Ambiguity - All test items were submitted to two groups of people. Fifteen mature native speakers of English were invited to complete the test and make comments as to the grammatical and semantic acceptability of all the paragraphs as well as the effectiveness of each paragraph in constraining the structurally ambiguous sentence contained therein so that only one of the possible meanings would be obvious. In addition, a class of eighteen grade six students was administered the test, and their answers were recorded. The children were invited to comment on those items for which they had found two sentences which gave a meaning for the underlined (structurally ambiguous) sentence or on those items which they found particularly confusing. Items

which were universally marked correctly by the adult sample were maintained unchanged. Items which were marked correctly by fewer than ten adults were revised for greater clarity and additional constraint. For items which fell between the parameters of ten to fifteen correct responses from the adult sample, the comments of the adults were considered in the light of the actual performance of the sample of children, and changes made in cases when they appeared to be justified. The revised items were then re-submitted to a smaller group of the adult sample for final approval.

The instructions for the test contain one example of a structurally ambiguous sentence which is underlined and embedded in a paragraph which constrains its meaning to only one of the possible meanings. The students are instructed to read each paragraph carefully and then read each of the three interpretative sentences which followed. They are to indicate whether each interpretative sentence gives a meaning for the sentence or part of a sentence which is underlined by placing a check (✓) by each interpretative sentence under a column "GIVES A MEANING" or under a column "DOES NOT GIVE A MEANING." Example: Sam was given a set of oil paints for his birthday. He immediately set up his easel in the livingroom and began to sketch the view from the front window. His mother found him there and began yelling about not getting paint on her new carpet. So Sam painted the picture in the kitchen, with frequent visits to the livingroom to check the details of the view.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Sam painted the picture that was in the kitchen	_____	_____ ✓
b) What Sam painted was the picture of the kitchen.	_____	_____ ✓
c) It was in the kitchen that Sam painted the picture.	_____ ✓	_____

Validity, Reliability and Normative Data:

Normative data are available from 30 grade six and 30 grade seven pupils. The mean scores for the total test, surface structure ambiguities, underlying surface ambiguities for the grade six pupils are 12.80, 5.73, 7.07 respectively, and for the grade seven pupils, 12.50, 4.97, and 7.53. Content validity is established for the test and is discussed under eight criteria. On the basis of data collected from thirty grade six students and thirty grade seven students, interval reliability as measured by the Kuder Richardson 20 Formula is .768.

Ordering Information:

EDRS

Related Documents:

Montague, Mikell, J. The Relationship of Sentence and Contextual Ambiguity to Reading Comprehension. Unpublished M. Ed. Thesis, The University of Alberta, Edmonton, 1974.

Related Documents continued...

Little, Peter S. An Investigation into the Relationship Between Structural Ambiguity and Reading Comprehension. Unpublished Masters Thesis, The University of Alberta, Edmonton, 1972.

Robertson, Jean E. An Investigation of Pupil Understanding of Connectives in Reading. Unpublished Doctoral Dissertation, The University of Alberta, Edmonton, 1966.

Fagan, William T. An Investigation into the Relationship Between Reading Difficulty and Number and Types of Sentence Transformations. Unpublished Doctoral Dissertation. The University of Alberta, 1969.

NAME: _____

CLASS: _____

CONTEXTUAL AMBIGUITY TEST

Mikell J. Montague

INSTRUCTIONS: This test is to find out if you understand the meaning of a sentence or group of words which occur in a paragraph. In the passages below, one of the sentences or groups of words is underlined. Below the passage are three sentences labelled (a), (b), and (c). Some of these sentences give the same meaning as the meaning of the underlined words in the paragraph. Read the whole paragraph. Then read the sentence labelled (a). Compare the meaning of this sentence with the meaning of the underlined words in that paragraph. If the sentence gives a meaning that is the same as the meaning of the underlined words in the paragraph, check GIVES A MEANING. If it does not give a meaning that is the same as the meaning of the underlined words in the paragraph, check DOES NOT GIVE A MEANING. Do the same for sentence (b), and sentence (c). Then go on to the next paragraph and do the same.

EXAMPLE: Sam was given a set of oil paints for his birthday. He immediately set up his easel in the livingroom and began to sketch the view from the front window. His mother found him there and began yelling about not getting paint on her new carpet. So Sam painted the picture in the kitchen, with frequent visits to the livingroom to check the details of the view.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Sam painted the picture that was in the kitchen.	_____	_____ ✓
b) What Sam painted was the picture of the kitchen.	_____	_____ ✓
c) It was in the kitchen that Sam painted the picture.	_____ ✓	_____

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1. George heard a shot from somewhere. He climbed a tree and scanned the horizon for the red of a hunter's shirt, but the hunter was too far away to see. George hoped that the yearling deer would stay in the bush where he had gone for safety. He prayed that the hunter would miss if he saw the deer.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) The hunter was too far away to be seen.	_____	_____
b) The hunter was too far away from something to see it.	_____	_____
c) The hunter who was seen was too far away.	_____	_____

2. The graduating class at Central School decided against having a dinner and dance with an expensive band. Instead they would have a casual picnic and entertainment by members of the class themselves. Everyone would donate the amount of money usually spent on a banquet and dance, and the money would be given to charity. When they learned these plans, the parents were surprised by the choice of the students.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) What surprised the parents was the students who were chosen.	_____	_____
b) It was the choice made by the parents that surprised the students.	_____	_____
c) The choice made by the students surprised the parents.	_____	_____

3. Last summer, the Ladies' Auxiliary gave a garden fair to raise money for Children's Hospital. They sold potted plants, hand-made gifts, and baked goods. However, the fair was a failure. Because of the name "garden fair", only those ladies who liked growing flowers came. They were disappointed that there were no speakers on how to prune rose bushes or when to fertilize petunia beds. They left without buying anything.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Only those ladies who were like growing flowers came.	_____	_____
b) Only those ladies came who liked flowers that are growing.	_____	_____
c) It was only those ladies who liked to grow flowers that came.	_____	_____

4. In the month of July, Captain Brown made three trips to Seaside Boat Equipment. In the first week, he bought some paint to paint his boat-house. The next week, he bought a medium-sized engine for his fishing boat. The engine was too powerful for the boat, however, and the following week a small boat engine was sold to the captain.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) To the captain was sold an engine for a small boat.	_____	_____
b) A small engine for a boat was sold to the captain.	_____	_____
c) A small boat and an engine were sold to the captain.	_____	_____

5. If you want a cat or a dog that will stay close to home and not go wandering about the streets, it is better to buy one that is as large as possible. Big cats and big dogs seem to like to stay close to their homes, but little cats and dogs like to go exploring.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Cats and little dogs like to go exploring.	_____	_____
b) Little cats and little dogs like to go exploring.	_____	_____
c) It is dogs and little cats that like to go exploring.	_____	_____

6. Mrs. Grant was always grateful to Uncle Dave for entertaining her baby, Paul, when he visited. Usually Paul went to the park with Uncle Dave in the afternoon. Later, when Mrs. Grant was fixing supper, he would play with the baby in the livingroom. Last time, he told her baby stories in the evening, while Mrs. Grant went out to do some shopping. He was a good babysitter.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Baby stories were what he told her in the evening.	_____	_____
b) She told him baby stories in the evening.	_____	_____
c) In the evening he told stories to her baby.	_____	_____

7. Have you ever wondered how two brown-eyed parents can produce a blue-eyed child? For the answer to that question, the young science student is the one to ask. Students in grade six science classes in our city have been doing controlled experiments with fruit flies and peas to discover how physical characteristics are passed from parents to offspring.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) The young science student is the one who should do the asking.	_____	_____
b) The one who should be asked is the young science student.	_____	_____
c) The young science student was the one who asked.	_____	_____

8. Yesterday, while Suzie was playing tennis, she hit the ball so hard that it went over the fence. It landed on the head of a boy who was playing marbles. The boy scrambled after the tennis ball, scowling angrily. He was about to fling it into a mud puddle when Suzie ran up to him. She spoke to the boy with a smile, and he handed her the ball.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) She was smiling when she spoke to the boy.	_____	_____
b) The boy with a smile was the one to whom she spoke.	_____	_____
c) The boy smiled and then she spoke to him.	_____	_____

9. At the winter carnival, each event was organized by a teacher and a student. Tom and Miss Clark, the new teacher, were in charge of skating, which was to follow the snowshoe event. As soon as the snowshoe race was over, the new teacher and Tom wanted to start skating. However, they waited for the prizes to be awarded before they went to the microphone and told the skaters to begin.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) It was skating that the new teacher and Tom wanted to start.	_____	_____
b) The new teacher and Tom were going to skate and they wanted to start.	_____	_____
c) The new teacher wanted Tom to start skating.	_____	_____

10. Most people wear clean socks and shoes, but not Larry. Every day he plays baseball. By the end of the week, his running shoes are covered with grass stain and dried mud. On Saturday morning, Larry puts on clean clothes, clean socks, and the same dirty shoes. Then he rushes out of the house before his mother has a chance to throw his runners into the washing machine.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Most people wear clean socks and clean shoes.	_____	_____
b) Most people wear shoes and clean socks.	_____	_____
c) Most people wear socks and clean shoes.	_____	_____

11. As usual, Janet invited Marie to sleep at her house on Friday night. They always ate supper with the family, helped with the dishes, looked at magazines in Janet's room, and then watched the late movie together. This Friday they had an argument, and Janet's mother heard the front door slam at eleven-thirty. Walking slowly into the room, Janet explained that her best friend had left early tonight.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Tonight her friend had best leave early.	_____	_____
b) Early tonight was when her best friend had left.	_____	_____
c) Tonight her best friend had left early.	_____	_____

12. Bobby and Tom were sitting in the backyard when they heard Ruff barking as he came around the house. Quickly they each found a hiding place. Bobby crawled under the lilac bush, and Tom dodged behind the outdoor fireplace. The dog found Tom more quickly than Bobby. He probably saw the boy's shoes beside the wood pile.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) It was Bobby who was found by the dog more quickly than Tom.	_____	_____
b) The dog found Tom more quickly than the dog found Bobby.	_____	_____
c) The dog found Tom more quickly than Bobby found Tom.	_____	_____

13. Tony was the art teacher's helper today. He passed out paper and brushes. He mixed paints. And when he ran out of powdered red paint, he went to fetch the red paint box from the storeroom. He had to read the labels, because all the paint boxes looked the same. When he found the right box, he hurried back to the room to mix the rest of the paint.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) He went to fetch the box of red paint.	_____	_____
b) It was the red box of paint that he went to fetch.	_____	_____
c) He went to fetch the red paint for the box.	_____	_____

14. The party had been going on for two hours when Harry took over the microphone and began playing his guitar. He sounded terrible. Everyone stopped dancing and started talking. Harry took the hint and left the stage. When the band began playing again, the young people stopped talking and began dancing once more. The dancing teenagers knew how good music sounded. They liked the band's music, but not Harry's.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) The dancing teenagers knew how to sound good at music.	_____	_____
b) The dancing teenagers knew how good the sound of music was.	_____	_____
c) The teenagers who were dancing knew how music which is good sounded.	_____	_____

15. After school the teachers had to meet with the principal to talk about the timetable for next year. As the meeting went on, the air in the room became very stale because some of the teachers were smoking. Finally the principal asked the teachers to stop smoking and opened the windows. Soon the room was full of fresh air again and the meeting continued.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) The principal asked the teachers to stop others from smoking.	_____	_____
b) Other people were smoking and the teachers asked the principal to stop them.	_____	_____
c) The teachers were smoking and the principal asked them to stop.	_____	_____

16. Most people who shop like pleasing salesmen. For that reason, some salesmen take classes which help them learn to be courteous and friendly, even with customers who are not. This training pays off for the businesses which employ them, since many customers walk out without buying anything if they are unhappy with the salesman.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Salesmen who are pleasing are liked by most people who shop.	_____	_____
b) Most people who shop like to please salesmen.	_____	_____
c) Salesman like pleasing most people who shop.	_____	_____

17. The mailman kept biscuits and candies in his pocket to munch on while he was making his rounds. When he delivered mail to the Martin house that day, he gave Mary Ellen some of the candies. Butch, her dog, wanted something to eat, too. But he threw her dog biscuits rather than candies, because they were easier to chew.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) It was dog biscuits that he threw her rather than candies.	_____	_____
b) He threw her candies rather than dog biscuits.	_____	_____
c) He threw biscuits rather than candies to her dog.	_____	_____

18. Mr. Smith's drug store was across the street from a school. Every afternoon, friendly groups of boys and girls crowded into the store to buy treats. Most of the boys bought ice cream bars with their money. The girls, however, bought licorice, candy bars, or potato chips. Mr. Smith decided that boys like ice cream better than girls.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) Boys like ice cream better than girls like ice cream.	_____	_____
b) Boys like ice cream better than girls like boys.	_____	_____
c) It is ice cream that boys like better than they like girls.	_____	_____

19. When Mary was in hospital last week, she missed a lot of school work. Friday morning she decided she felt well enough to write the essay which had been assigned in Language Arts. She telephoned home and asked her brother Fred to send some lined paper over to the hospital. But Fred sent her school books rather than paper, so she had to borrow stationery from another patient to write the essay.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) It was school books that Fred sent her rather than paper.	_____	_____
b) Fred sent her paper rather than school books.	_____	_____
c) Fred sent paper rather than books to her school.	_____	_____

20. Central School's field hockey team had a fund-raising drive for money to buy uniforms. Three team members submitted designs for the uniforms, and a vote was taken at a general meeting. The team's selection was announced in the morning. They had chosen blue shorts, blue-and-gold shirts, and gold knee socks.

	GIVES A MEANING	DOES NOT GIVE A MEANING
a) The morning's selection was announced by the team.	_____	_____
b) That the team was selected was announced in the morning.	_____	_____
c) The selection made by the team was announced in the morning.	_____	_____