

LESSON TOPIC: Simple introduction to brain application in writing process

PRIOR KNOWLEDGE: Students will have taken a right / left brain "Which Side Are You On?" questionnaire to determine which hemisphere of the brain they tend to prefer. They will have also received literature on brain hemisphere characteristics. Several brain challenge questions will have been presented to the class prior to today's lesson.

NORTH DAKOTA ENGLISH LANGUAGE ARTS AND LITERACY CONTENT STANDARDS:

Production and Distribution of Writing: Code W5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

Range of Writing: Code W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

OBJECTIVES: 1. Creatively think of reasons to support choices. 2. Work in teams to select best arguments.
3. Vocalize arguments to support choices.

MATERIALS: Handout (on back side), writing utensil

CHRONOLOGICAL LESSON:

1. Review the logical left brain characteristics and the creative right brain characteristics.
2. Pass out the handout and allow no more than ten minutes for the students to make their choices and to give a solid reason for each choice.
3. Designate one corner of the room as the first choice answer corner and a different corner for the second choice answer for each question.
4. For question #1, students are to go to the designated corners for the answers they put on their sheets.
5. Once divided into the appropriate corners, students are to determine which argument their team members have written down is the strongest.
6. Students need to choose one speaker from their team to debate with a speaker from the opposing team. Each student is to present his or her argument to the other student in front of the class. The teacher will judge which argument is the better of the two.
7. The same procedure is used for the rest of the questions. The teams will be different each time! Students are to select a member from their team who has yet to speak.

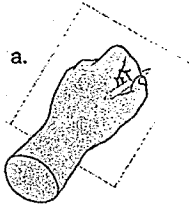
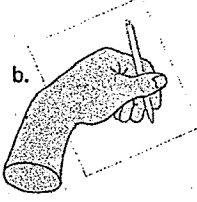
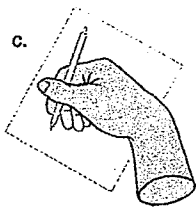
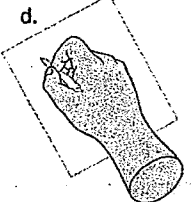
CHECK FOR UNDERSTANDING: Students learn from the very first of the six questions to dig deep for their arguments! They gain insight into other students' "brain activity" because I often hear, "That's a great argument! I never thought of that at all!"

CONNECTIONS: After the debate, students will see two separate short clips from the movie *My Girl* to show how the main character's writing matures due to a major life experience. The overnight writing assignment that should tap creative brain juices is to write a short paragraph describing the world's best bathtub. All five senses should be appealed to in the writing. A separate two-day assignment is to make a collage of as many items as you can think of with the color that your row is assigned. These fun writing and thinking exercises will lead to more creative writing assignments, which will in turn lead to narrative and informative writing. With practice, students will learn to pull from their creative (right) side of the brain to gain ideas for writing BEFORE working with the logical (left) side to proofread and edit.

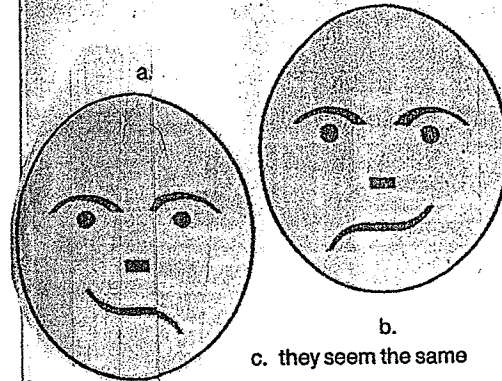
WHICH SIDE ARE YOU ON?

Are you a left-brain or a right-brain thinker? Strictly speaking, of course, you're both, since normal people use both sides of their brains for virtually everything they do. Nevertheless, many people think in a way that scientists associate with one or the other of the brain's hemispheres. To determine your own thinking style, try this just-for-fun questionnaire, prepared under the guidance of Ivan Muse, a professor of education at Brigham Young University. (Note: you'll need a partner to help you with Section Three.)

SECTION ONE

- When you go to a movie, do you prefer to sit
 - on the left side of the theater
 - on the right side of the theater
 - in the center, or no preference
- Do you like to work
 - on a team
 - by yourself
- When someone gives you an assignment, do you prefer
 - highly specific instructions
 - rather flexible instructions
- Do you tend to make decisions
 - on a gut feeling or hunch
 - after careful analysis and thought
- In general, do you feel that laws
 - should be strictly enforced for everyone
 - should be enforced only after considering individual circumstances
- To motivate yourself, do you prefer
 - competing with yourself
 - competing with others
- Which drawing is closest to the way you hold a pen?
 - 
 - 
 - 
 - 

8. Which face seems happier to you?



- Would you prefer to be married to someone who
 - has unusual ideas and daring concepts
 - is a thorough planner and organizer
- When you shop, do you tend to buy
 - after reading labels and comparing costs
 - on impulse
- Does daydreaming help you make decisions
 - frequently
 - sometimes
 - rarely
- Which makes you happiest:
 - doing a crossword puzzle
 - sketching or drawing
 - finishing a work assignment
 - singing in the shower
- When you meet someone, is it easier to
 - remember the name
 - remember the face
 - both are equally easy or difficult
- Pick the two adjectives that best describe how you work.
 - organized (efficient, orderly)
 - imaginative (good at thinking up new ideas)
 - outgoing (work well with others)
 - result-oriented (complete everything you start)
 - intellectual (use reasoning powers to solve tasks)
 - intuitive (reach conclusions by a "sixth sense")
- At a meeting, do you prefer
 - a graphic slide presentation
 - a dynamic speaker
- When driving in a city that you know slightly, do you
 - get a map and ask for explicit directions
 - navigate by your own sense of direction
- In a discussion, do you usually feel that
 - there are clear right and wrong positions
 - both sides have merit

18. After attending a play or movie, do you prefer

- a. to talk to others about it
- b. to think it over privately

19. When do you do your best work?

- a. early in the morning
- b. late in the afternoon or evening
- c. at no particular time of day

20. If chosen to be a leader, would you rather be known as

- a. humane, understanding, empathetic
- b. logical, organized, fair

SECTION TWO

Here are four problems. Rank them in order of preference, with number one being the type of problem you most like to solve, and number four being your least favorite. (You needn't answer the questions, although the answers will be given for those who want them.)

Problem A

A grain company mixes seed costing 20 cents a pound with seed costing 25 cents a pound to produce a blend of seed costing 22 cents a pound. How many pounds of the more expensive seed are in a 50-pound sack of this mixture?

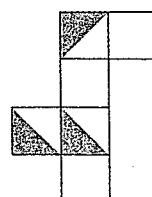
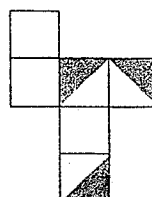
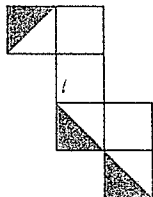
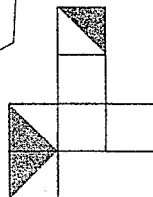
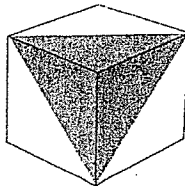
- a. 20
- b. 25
- c. 30
- d. 40
- e. none of these

Problem B

You're confined to a prison cell that has two doors. One leads to freedom, the opposite one to instant death. You don't know which door is which. With you are two jailers. One of them always tells the truth; the other always lies. Again, you don't know who is who. You may ask either of the jailers—but not both—one question. What question should you ask to learn which door leads to freedom?

Problem C

Which of the following four cutouts could be folded in such a way that it produces the cube in the drawing?



Problem D

The words house, village, and thumb are all related to the word green in that they combine with green in a common word or phrase: greenhouse, village green, green thumb. In each example below, find the word that relates to all three:

- a. blue, cake, cottage
- b. water, pen, soda
- c. up, book, charge
- d. man, screen, sure

SECTION THREE

For this section, you need a partner. Give the magazine to your partner now, and don't read the rest of these instructions.

Instructions for partner: Sit in front of the person being examined and ask the ten questions below. Pay no attention to the answers, but watch the person's eyes to see in which direction he first glances when mulling over the problem. Put a check in the appropriate box below. (He need not glance exactly to the side; if he glances up and to his left, that's considered a leftward glance.) If he doesn't look to either side, don't check either box.

1. How many letters are there in the word California?

☞	☞	☞	☞

2. A cube has how many points (i.e., pointed corners)?

--	--

3. What was the name of your favorite grade school teacher?

--	--

4. Multiply seven times fourteen in your head.

--	--

5. Name the letters of the alphabet that have curves in their capital-letter forms.

--	--

6. Give three meanings for the word pound.

--	--

7. What color shirt (blouse) did you wear yesterday?

--	--

8. How many doorways do you pass through going from the street to your bedroom?

--	--

9. Name the letters of the alphabet that contain the sound ee.

--	--

10. Which way does the profile of George Washington face on a quarter?

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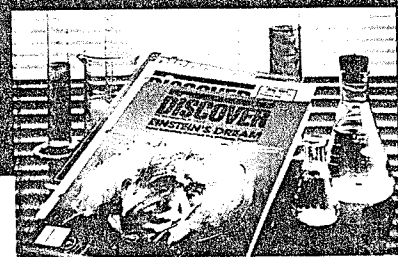
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DISCOVER SCIENCE PROGRAM

INTERPRETING THE LEFT-BRAIN, RIGHT-BRAIN QUESTIONNAIRE (pages 40 and 41)

SECTION ONE

Answers that tend to indicate a left-brain preference get five points each. Right-brain answers get one point. Answers that indicate no preference get three points each.

1. a=5 b=1 c=3

The theory here is that left-brain people may tend to sit on the left side of theaters so the screen will fall more into their right visual field, which sends information direct to the left hemisphere of the brain. For right-brainers, the situation is reversed.

2. a=1 b=5
 3. a=5 b=1
 4. a=1 b=5

The answer to question number 4 depends on the fact that right-brain people may be more likely to jump to emotional or intuitive conclusions, while left-brain people are usually more analytical.

5. a=5 b=1
 6. a=1 b=5
 7. a=1 b=5 c=5 d=1
 8. a=5 b=1 c=3

Since the right hemisphere of the brain is usually more emotionally sensitive, most people see figure A as happier. Presumably this is because the smiling side of its mouth falls in the left visual field, which goes direct to the right hemisphere.

9. a=1 b=5
 10. a=5 b=1
 11. a=1 b=3 c=5
 12. a=5 b=1 c=5 d=1
 13. a=5 b=1 c=3

Left-brain people tend to be better at remembering names than faces. For right-brainers, the reverse is true.

14. a=5 b=1 c=1 d=5 e=5 f=1
 15. a=1 b=5
 16. a=5 b=1

Left-brainers usually want explicit directions, while right-brainers regard asking for directions as an admission of failure.

17. a=5 b=1
 18. a=5 b=1
 19. a=5 b=1 c=3

Left-brainers tend to be morning people, right-brainers evening people.

20. a=1 b=5

SECTION TWO

Problems A and B are left-brain problems, because they involve mathematics and logic, respectively. The other two are right-brain,

because they depend on visualizing a folded figure (problem C) or thinking of imaginative connections between words (problem D). Score this section according to which two problems you preferred to do. Find your score in the table below:

Problem ranked number two

	A	B	C	D
Problem ranked number one	-	15	11	11
A	15	-	11	11
B	7	7	-	3
C	7	7	3	-
D				

ANSWERS TO SECTION TWO



Problem A: a. 20 pounds.

Problem B: Ask either jailer, "If I asked the other jailer to point to the door to freedom, which door would he point to?" Then go through the door opposite the one the jailer indicates. If you put the question to the truthful jailer, he'll honestly tell you what the other jailer would've said—that is, a lie. If you ask the lying jailer, he'll lie and tell you the opposite of what the truthful jailer would've said.

Problem C: b.

Problem D: a. cheese; b. fountain; c. cover; d. fire

SECTION THREE

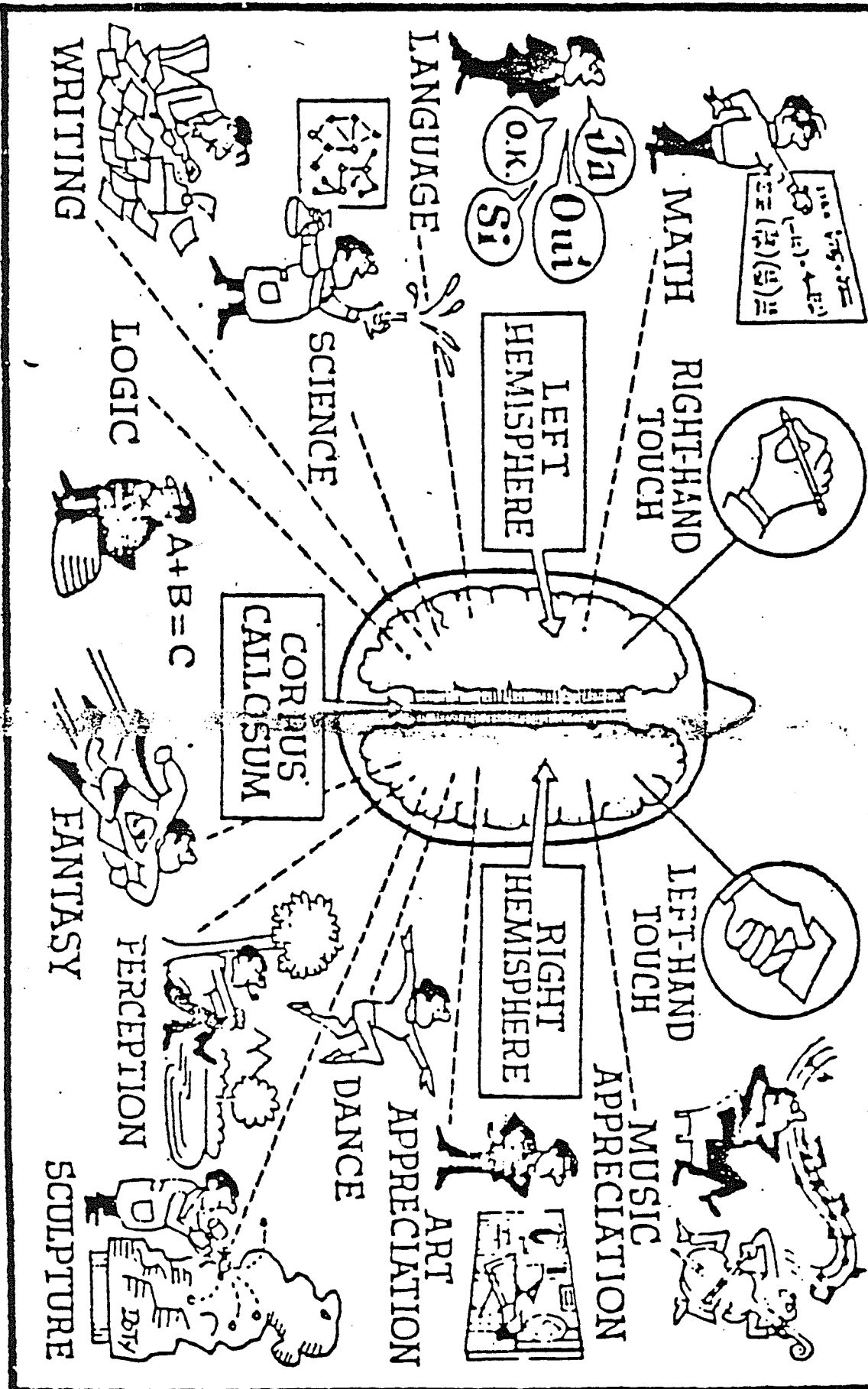
Some studies have suggested that people glance in the direction opposite to the hemisphere that is most active at the time. That is, a person who looks to his left may be using his right hemisphere, and vice versa. So give yourself five points for every  glance, one point for every  glance, and three points for each pair of boxes that your tester left unchecked. *right* *left*

Add your scores for sections one, two, and three together. If the total is between 34 and 85 points, you've shown a preference for right-brain thinking. You may have creative, musical, or artistic talents. You often rely on feelings and intuition in making decisions. You're good at spotting overall patterns based on limited evidence, and excel at solving complex problems that demand a creative and insightful approach. You detest dealing with messy details.

If you scored between 119 and 170 points, you've demonstrated a preference for left-brain thinking. You're likely to be a verbal, logical, analytical person, perhaps with mathematical skills. You're meticulous and well-organized, and excel at activities that require careful planning, cost projections, and attention to detail. You'd rather see one project carried through to completion than six half finished.

If you scored between 86 and 118 points, you've indicated that you use both right-brain and left-brain thinking equally.

HOW THE BRAIN DIVIDES ITS WORK



LEFT-BRAIN CHARACTERISTICS

- ___ is good at remembering names
- ___ will answer best to directions which are spoken or written down
- ___ likes to keep feelings to himself/herself
- ___ when trying something new, he/she always likes to think of different ways to do it before he/she tries it
- ___ likes to do things one at a time
- ___ likes test where the answers are given and he/she must pick the best one (multiple choice, true/false)
- ___ waits for people to tell him/her when they are happy or sad
- ___ is not good at thinking up funny things to say and do (serious attitude about things)
- ___ is time conscious, likes for meetings to start and end on time (feels "naked" without a wristwatch)
- ___ likes agendas, program booklets, outlines, lists, written contracts and agreements
- ___ likes neatness in self and others
- ___ fairly long attention span, good listener, able to concentrate on one subject for long period of time
- ___ is not a risk-taker, careful, does not like to make mistakes, perfectionist
- ___ likes to follow written directions that are numbered
- ___ will ask many questions before making a decision, is sometimes stubborn and overly cautious when placed in a problem-solving situation
- ___ likes to read (the book is always better than the movie)
- ___ likes to use the right tools for the right job
- ___ likes underwear folded and lined up in the dresser drawer

RIGHT-BRAIN CHARACTERISTICS

- ___ is good at remembering faces
- ___ will answer best to directions which are shown or demonstrated
- ___ likes to let people know how he/she feels
- ___ likes to try things that he/she has not tried before
- ___ likes to do several things at once
- ___ likes tests where he/she writes out the answer (essay)
- ___ can tell when someone is happy or not without the person telling them
- ___ is good at thinking up funny things to say and do (class clown)
- ___ random learner, shows up late for meetings, seems to have own concept of time
- ___ dislikes structured situations, details, agendas
- ___ high tolerance for clutter, disorganized, messy
- ___ short attention span, "spacy," daydreamer, mind wanders a lot
- ___ is a risk-taker, does not always fear failure
- ___ dislikes written directions, likes to picture the answer to a problem in his/her head
- ___ likes to guess at the answer or use intuition in problem solving situations
- ___ likes to draw
- ___ will use anything around to get things done
- ___ uses a "jam-it-and-cram-it" system of organization

English 8
Right Brain "Attack" Questions

Name _____

Think hard! Be creative with your answers!

1. Which is quieter? MOONLIGHT
Why?

EMBARRASSMENT

2. Which is more comfortable? A CHAIR
Why?

A DIARY

3. Which costs more? POPULARITY
Why?

LONELINESS

4. Which is taller? FRUSTRATION
Why?

JOY

5. Which is more exhausting? MOUNTAIN CLIMBING
Why?

REJECTION

6. Which is longer? A LIE
Why?

A BELIEF