

The Humpty Dance & the Human Cerebellum

Objective: Students will be able to demonstrate their understanding of the primary role of the cerebellum: the coordination of muscle movements. Students will be able to demonstrate this both by explaining this in a short paragraph, and by physically acting it out—by doing the Humpty Dance.

Instructional Materials:

Teacher brings:

1. Laptop computer w/ LCD projector
2. DVD w/ the following links on it:
 - a. <http://probasketball.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=probasketball&zu=http%3A%2F%2Fwww.redbrick.dcu.ie%2F%7Ehammo%2Fmovies%2Fdunk.mpeg>
 - b. http://www.nba.com/theater/video/jordan_ft_1992.avi
3. Overhead Projector, w/ relevant transparencies
4. Model of the human brain
5. 7 small whiteboards w/ markers (1 for each group)
6. CD player
7. CD: Digital Underground's "Sex Packets", featuring single "The Humpty Dance"

Students bring:

1. Classroom writing journals
2. A pencil

Special Considerations:

1. This lesson incorporates a variety of different activities, including direct instruction, music & dancing, video elements, written work, oral responses, group work, and a light-hearted competition at the end. As such, it moves quickly, and requires that management be strong—not for a substitute teacher.
2. This lesson involves dancing badly—in a way that could be construed as disrespectful to those who are either uncoordinated or physically challenged. As such, the teacher needs to be careful to instruct students that, while we're just playing at a lack of coordination, some people have very serious problems associated with cerebellum malfunctions.

Procedures:

Time (min.)	Teacher	Students	Learning/literacy Strategies/modalities addressed
4	<p>Take Attendance while students do the “DO NOW” exercise: “In your journals, explain what you do when you walk. What muscles do you move, and when? Do you move your toes, your ankles, your knees, etc? Be specific.”</p> <p>Written on the board are vocabulary words: Cerebellum, coordination.</p>	Write down their observations and thoughts in their journals.	<p>Reflection on real-world experiences to help set the context for the lesson.</p> <p>Vocabulary words on the board helps ELL students & others focus on key concepts addressed in class</p>
4	Gather responses from students. If they’d like to demonstrate, that’s even better, but they have to be specific in their descriptions, as they walk.	Respond orally/physically	<p>Oral literacy skills are developed through very detailed descriptions.</p> <p>Also, kinesthetic & visual modalities are addressed by including physical demonstrations.</p>
2	Teacher instructs students to take seats, and get prepared to watch 2 videos. In each, students are expected to think about what each of the subjects in the videos is thinking about as they perform phenomenal feats of muscle control.	Listen, prepare to watch videos	“Pre-reading” the video clips (or preparing the students to actively watch them) prepares students to focus on their observation skills.
3	<p>Teacher shows clips of Vince Carter dunking over a 7’2” opponent, and of Michael Jordan making a free throw with his eyes closed.</p> <p>a. http://probasketball.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=probasketball&zu=http%3A%2F%2Fwww.redbrick.dcu.ie%2F%7Ehammo%2Fmovies%2Fdu nk.mpeg</p> <p>b. http://www.nba.com/theater/video/jordan_ft_1992.avi</p>	Watch videos and compare content to discover common elements. Then write responses in journal	Visual modalities engaged, as students use videos to re-analyze their thoughts on muscle movement coordination.
3	Gather oral responses from students: what did they observe? Guide them to the idea that our bodies are capable of coordinating an unbelievably complex series of movements without our even having to think about it.	Respond orally, listen	

10	<p>Direct Instruction: Use overhead projector transparencies.</p> <p>Following up on previous lesson about the cerebrum, teacher describes the cerebellum as that portion of the brain that coordinates all muscle movement, and helps to maintain balance.</p> <p>Demonstrates where the cerebellum is situated, using model of the brain.</p>	Listen, take notes, copy drawings off overhead	Auditory/symbolic learners benefit from direct instruction, and teacher gets to present overview, as well as correct misconceptions students may have.
2	Teacher explains in-class writing assignment: "Based on what you now know about the cerebellum, try to hypothesize about what a person would look like if he were to try to dance with a damaged cerebellum."	Students listen to directions	Scientific Method literacy. Writing literacy addressed via journal entries.
3	Teacher monitors student responses, answers any questions	Students write responses in journal	
1	Teacher instructs students to break into groups of 4, and asks each group to give itself a little space.	Students follow directions	
1	Teacher explains that there is going to be a dance contest, with the winner receiving a free 5 points.	Students listen	
3	Teacher plays the first two verses of Digital Underground's "The Humpty Dance".	Students dance	Kinesthetic learners dancing while thinking about muscle coordination.
5	<p>Teacher stop CD, distributes the lyrics for the song, and tells students that there is a catch: The dance contest is a group contest, and in order to win the contest, the group has to explain (on their whiteboards) the following:</p> <ol style="list-style-type: none"> 1. Where the cerebellum is 2. What it does 3. How it works with the cerebrum <p>Only if all those responses are correct will the group be allowed to enter the contest, which will include the worst/best "Humpty Dance", based on the lyrics.</p>	Students listen	
5	Teacher monitors student groups' responses	Students work in groups to write correct responses on their whiteboards	Small group work helps to reinforce main ideas, while allowing high & low achievers to benefit from the interaction.

1	Teacher asks students to hold up their whiteboards, and makes sure that they're all correct.	Students hold up responses	
5	Teacher tells each group they get one dancer for one minute each	Students dance	Highly visual examples of poorly functioning cerebellum
1	Teacher awards the prize for the best "Humpty Dance" awards the 5 points	Students leave	
3	Teacher explains homework assignment: "Soldiers in wars often receive physical injuries to their heads (either to the cerebellum or the cerebrum). Which type of injury (cerebral or cerebellar) do you think would be more damaging, and why?"	Students record homework assignment	

Sample Student Products: As a result of this lesson, students will produce:

1. Several in-class written assignments: throughout the lesson, students write observations, hypotheses, and notes in their classroom journal. In addition, they are required to write a short paragraph responding to the following prompt: "Based on what you now know about the cerebellum, try to hypothesize about what a person would look like if he were to try to dance with a damaged cerebellum."
2. Homework assignments:
 - A. 10 points: "Soldiers in wars often receive physical injuries to their heads (either to the cerebellum or the cerebrum). Which type of injury (cerebral or cerebellar) do you think would be more difficult to deal with after the war is over, and why?"

Assessment: Journal responses are monitored, and checked for appropriateness in-class; more thorough inspection of responses takes place during periodic binder checks.

The in-class written assignment can receive a maximum of 10 points, broken down as follows:

- ❑ 6 points for explaining that the cerebellum controls the coordination of voluntary muscle movements.
- ❑ 4 points for creatively expressing what this would actually look like, if a person with a damaged cerebellum were dancing.

The homework assignment can receive a maximum of 15 points, broken down as follows:

- ❑ 5 points for completion.
- ❑ 5 points for correctly noting the different impacts that would occur in the two different types of injuries
- ❑ 5 points for a thoughtful response to the question of which would be harder to deal with after the war.

Reflections: As I noted earlier, this class should move from activity to activity quickly, with many different modalities engaged, and hopefully will generate a lot of laughter and

excitement. Due to the fact that there are many transitions, management expertise will be important.

Also, it will be important to acknowledge the misogyny and drug/alcohol allusions in the song lyrics, to make sure that students are prepared for them, and don't focus on these lyrics at the expense of the key ideas relevant to the lesson.

Literacy Aspect: There are several different forms of literacy addressed in different facets of this lesson:

1. Written literacy skills. Students will practice their writing skills in two key areas:
 - a. Factual writing. As students record detailed, written observations in their classroom journals, they exercise factual writing/observation skills, which are critically important in science.
 - b. Predictive writing: Students will record their hypotheses/predictions in their class journals. As with the factual writing, this type of literacy skill is particularly important in science.
 - c. Expressive writing. As students work through their homework writing assignments, they are required to exercise their ability to write opinions and expectations about a hypothetical problem. The skills developed in the homework assignment apply also to the persuasive essay, as students are asked to explain and corroborate their opinions.
2. Oral literacy skills. Students will practice their oral literacy skills by sharing their own observations and conclusions with the class.
3. Scientific method literacy skills. Science in some ways has its own language and discourse, requiring different literacy skills, in part centered around the scientific method (including forming hypotheses, performing well-designed experiments, observing results accurately, reaching conclusions). In this class lesson, students are repeatedly required to practice several of these skills.
4. Dance: As an expressive medium, dance has its own rules of meaning and its own values embedded in the "language" of movements. While it's not orthodox literacy, the dance that students do at the end of this lesson does communicate a certain understanding of the nervous system, and as such, constitutes literacy development.

Artist: Digital Underground
Album: Sex Packets
Song: The Humpty Dance

Verse One: Humpty Hump (Shock G)
All right!
Stop whatcha doin'
'cause I'm about to ruin
the image and the style that ya used to.
I look funny,
but yo I'm makin' money, see
so yo world I hope you're ready for me.
Now gather round
I'm the new fool in town
and my sound's laid down by the Underground.
I drink up all the Hennessy ya got on ya shelf
so just let me introduce myself
My name is Humpty, pronounced with a Umpty.
Yo ladies, oh how I like to hump thee.
And all the rappers in the top ten--please allow
me to bump thee.
I'm steppin' tall, y'all,
and just like Humpty Dumpty
you're gonna fall when the stereos pump me.
I like to rhyme,
I like my beats funky,
I'm spunky. I like my oatmeal lumpy.
I'm sick wit dis, straight gangsta mack
but sometimes I get ridiculous
I'll eat up all your crackers and your licorice
hey yo fat girl, c'mere--are ya ticklish?
Yeah, I called ya fat.
Look at me, I'm skinny
It never stopped me from gettin' busy
I'm a freak
I like the girls with the boom
I once got busy in a Burger King bathroom
I'm crazy.
Allow me to amaze thee.
They say I'm ugly but it just don't faze me.
I'm still gettin' in the girls' pants
and I even got my own dance

{Chorus:}
The Humpty Dance is your chance to do the
hump
Do the Humpty Hump, come on and do the
Humpty Hump
Do the Humpty Hump, just watch me do the
Humpty Hump
Do ya know what I'm doin', doin' the Humpty
Hump
Do the Humpty Hump, do the Humpty Hump

Verse Two:

People say "Yo, Humpty, you're really funny
lookin'"
that's all right 'cause I get things cookin'
Ya stare, ya glare, ya constantly try to compare
me
but ya can't get near me
I give 'em more, see, and on the floor, B,
all the girls they adore me
Oh yes, ladies, I'm really bein' sincere
'cause in a 69 my humpty nose will tickle ya
rear.
My nose is big, uh-uh I'm not ashamed
Big like a pickle, I'm still gettin' paid
I get laid by the ladies, ya know I'm in charge,
both how I'm livin' and my nose is large
I get stoopid, I shoot an arrow like Cupid,
I use a word that don't mean nothin', like looptid
I sang on Doowhutchalike, and if ya missed it,
I'm the one who said just grab 'em in the biscuits
Also told ya that I like to bite
Well, yeah, I guess it's obvious, I also like to
write.
All ya had to do was give Humpty a chance
and now I'm gonna do my dance.

{Chorus}
Oh, yeah, that's the break, y'all
Let me hear a little bit of that bass groove right
here
Oh, yeah!
Now that I told ya a little bit about myself
let me tell ya a little bit about this dance
It's real easy to do--check it out

Verse Three:
**First I limp to the side like my leg was broken
Shakin' and twitchin' kinda like I was
smokin'
Crazy wack funky
People say ya look like M.C. Hammer on
crack, Humpty
That's all right 'cause my body's in motion
It's supposed to look like a fit or a convulsion
Anyone can play this game
This is my dance, y'all, Humpty Hump's my
name
No two people will do it the same
Ya got it down when ya appear to be in pain
Humpin', funkin', jumpin',
jig around, shakin' ya rump,
and when the dude a chump pump points a
finger like a stump
tell him step off, I'm doin' the Hump.**