Social Studies and the Young Learner 16(2), pp. 20-22

Using Multiple Intelligence Theory in K-2 Geography

Timothy Lintner

Whether one teaches kindergarten or college, a common challenge is "reaching" students. Teachers have understood for years—centuries, I would argue—that how the mind learns can vary greatly from student to student. Simply stated, students learn and process information differently one from another. What seasoned teachers have known intuitively, psychologist Howard Gardner articulated as the Theory of Multiple Intelligences. Gardner's insight is that all humans possess a range of intelligence far beyond what is measured by an IQ test or any other paper-and-pencil assessment. Gardner posits "eight intelligences," or ways of knowing and processing, that each human possesses. In any given individual, some of these intelligences are more prominent than others. Gardner also states that we start to realize and gravitate towards our intellectual strengths at an early age.[1] Intelligence, thus redefined, is multifaceted, dynamic, and highly correlated with individual desire and perception.

It is in the field of education that Multiple Intelligence Theory has had its most profound and sweeping influence. Gardner's theory has been applied in language arts,[2] music,[3] and social studies.[4] In the latter, strategies have been applied to historical study particularly for middle and secondary students. This article provides examples of how the theory can be used to present information concerning geographical concepts to K-2 students. A brief synopsis of each intelligence is provided, followed by practical exercises students can use to better understand the physical and social worlds around them.

Musical/Rhythmic Intelligence

Students who are musically inclined pay particular attention to tone, beat, and rhythm. They are attuned to the patterns and relationships found in music. These students think in and respond to patterns, pitches and variations in sounds, including the human voice. They excel in picking up a melody or musical line and remembering it. Musical/Rhythmic students are astute and discriminating listeners.

Young students who enjoy music and are keen at memorizing patters and words can memorize the oceans and the continents through song:

"Row, Row, Row the Oceans"
(Sung to the tune of "Row, Row, Row Your Boat")
Row, row, row your boat
Through the oceans blue
Pacific, Atlantic, Arctic, Indian,
Flounders in your shoe!

"We're Off to See the Continents!"
(Sung to the tune of "We're Off to See the Wizard")
We're off to see the continents,
The continents from outer space
We hear there're seven, not ten or eleven
With every one in its place:
There's Africa, Antarctica,
And North and South America;
There's Europe, and Australia,
And Asia . . .
(But we never count Malaysia!)
We're off to see the continents,
The continents from outer space!

Intrapersonal Intelligence

Intrapersonal intelligence is premised on a keen awareness and understanding of self. At any age, these students are very much aware of their likes and dislikes, their strengths and weaknesses. They are goal setting, self-starting, and focused. They are reflective and, thus, are often perceived as aloof or shy. By nature, Intrapersonal students feel most comfortable working alone.

Have students label and then color their own Compass Rose.[6] This is a simple yet foundational independent activity that introduces young learners to the concept of cardinal directions. An activity on the Internet to enhance the understanding of geography for the Interpersonal learner is called "Reading a Jolly Map."[7] This activity can be used in conjunction with the Compass Rose to support the concept of cardinal directions.

Verbal/Linguistic Intelligence

Verbal/Linguistic students learn through reading, writing, and telling stories. These students are able readers and have a rich vocabulary. They listen, speak, and write effectively. They enjoy creating original works of writing and forms of communication. Verbal/Linguistic students learn best through reading, hearing, and seeing words.

As Verbal/Linguistic learners like to read (or be read to), provide verbal activities as part of any lesson. I have found two lessons that work particularly well for Verbal/Linguistic learners. First, have students independently read (or depending upon ability level, read with assistance) "Willy and the Four Directions," by the Florida Geographic Alliance.[8] This is a simple yet marvelous story about direction. A second way to reach the Verbal/Linguistic learner is through a series of lessons premised on *Me On the Map* by Joan Sweeney.[9] This is one of the best, most comprehensive lessons using Verbal/Linguistic skills to support geographical concepts.

Visual/Spatial Intelligence

This intelligence concerns mental imaging and the ability to examine images

for meaning, comparison, and contrast. Students strong in this intelligence often think in images, are visually creative, and enjoy drawing, building, and reading maps and charts. They have an acute sense of both space and place. They are able to decode maps, graphs, tables, and diagrams. Visual/Spatial learners need to see images and concepts to better understand course content.

Visual/Spatial learners excel at understanding patterns and relationships in their physical world. To address this intelligence, ask students questions such as "Why are many gas stations located near freeways?" "Why is there a fire station nearby?" "Why are trash dumps located far from town?" "Why are mills often located close to railroad tracks?" "Why are some houses located close to the ocean?" These questions, and others, provide the Visual/Spatial learner with opportunities to connect visual experience with social and cultural information. A teacher can expand this exercise by showing on a map the distances and relationships between two points locally (school to hospital; city center to surrounding areas) or nationally (city to city; state to state; city to nearest ocean or river). Ask students how these spatial distances relate to time, convenience, money, mode of transportation, weather, natural resources, etc.[10]

Bodily/Kinesthetic Intelligence

This intelligence relates to the processing of knowledge through bodily sensations. Students who are Bodily/Kinesthetically inclined think and understand through movement, touch, physical sensation, and manipulation. They learn best by hands-on direct involvement. Bodily/Kinesthetic students enjoy sports, dancing, using body language, and manipulating objects and environments.

A great lesson that gets students out of their seats and literally out of the building is called "Finding Captain Hook's Treasure."[11] This lesson reinforces cardinal direction yet does so through physical manipulation and physical exploration. Another lesson that provides students with the physical reinforcement of knowledge is called "Learning a New Environment."[12] It is a fun, practical way for kindergarten students to learn the physical features of their school. This lesson acquaints young learners with their physical environment, thus reducing the anxiety often present during the first days of school.

Interpersonal Intelligence

Students who are strong in Interpersonal Intelligence seek out and are quite comfortable in person-to-person settings. They have an ability to work with and to understand other people. These students are perceptive and sensitive to the feelings and opinions of others. They understand and communicate effectively both verbally and non-verbally. These students are adaptable, and often influential among their peers. Interpersonal students enjoy collaboration, group work, debate, dialogue. They are, by nature, gregarious and outgoing.

To stimulate both discussion and collaboration, have students work in pairs or small groups to create their own travel brochure or poster. A lesson that is particularly beneficial to the Interpersonal learner is entitled "Travel to Beautiful _____!"[13] Another lesson that supports the Interpersonal learner is called "Where I Live."[14] This activity encourages the sharing of ideas and can also lead into discussions concerning similarities/differences and compare/contrasts with regard to landscapes and habitats.

Naturalistic Intelligence

Naturalistic intelligence concerns the ability to explore and understand both human and natural environments. Students are strong in classification according to variations in the environment. They can easily recognize patterns in members of a species or class of objects. These students are also interested in change in the causes and effects of events in nature. Direct observation is often the primary tool of inquiry.

Two lessons concern an integral aspect of geography—the weather. The first, "I Know the Temperature in Kalamazoo," examines physical places (states) on a map and examines and records corresponding weather conditions.[15] A key component of this lesson, which ties in nicely to the interests of the Naturalistic learner, is the cause-and-effect and prediction questions offered. A second lesson geared for the Naturalistic learner is "Changes in the Weather," which concerns the identification and classification of the four types of clouds.[16] It is an on-going, fun, and engaging exercise that initiates young learners to cloud composition, formation, and classification.

Logical/Mathematical Intelligence

Reasoning and deduction are the foundations of this intelligence. Students who possess Logical/Mathematical intelligence are numerically inclined and understand material through and by the use of numbers. They make numerical and logical/rational connections between things and events. They also think in conceptual and theoretical pattern sequences, where every action has a logical and relative reaction. Logical/Mathematical students excel in word problems, riddles, "what if" speculations, and classification skills.

A simple lesson that couples math skills with geography is called the "How Far Do You Live From...?" Create a grid on a sheet of plastic used for overhead projectors, then place it over a local map. Each quadrant (or square) on the grid can represent one mile (the scale can be actual or fictitious). Point out certain features on the map, say a prominent building or land feature. Then ask students to calculate how far it is from that feature to their school. You can expand this lesson by asking students to locate several "distances" on the map, then add the total distance from several points. This lesson is flexible and can include addition, subtraction, and even multiplication. It is an easy way to link math and geography lessons.

A more sophisticated and detailed lesson asks students to graph the changes in temperature over a series of days and from multiple physical points.[17] This is a marvelous lesson that ties in weather (temperature) and mathematical skills (charting and graphing). Although garnering enough thermometers for every student may be a constraint, this lesson is perfectly suited for the mathematically intelligent student.

Conclusion

What has been provided is an admittedly cursory and limited snapshot of how Multiple Intelligence Theory can be coupled with the understanding of select geographical concepts and skills within K-2 classrooms. Though lessons premised on Multiple Intelligence Theory are often more detailed and time consuming (in terms of student activity and teacher preparation), they provide students with multiple ways in which to understand and apply knowledge. And if the goal of good teaching is to reach every student, such lessons provide a practical and meaningful way in which to do so.

Notes

1. Howard Gardner, *Frames of Mind: The Theory of Multiple Intelligence* (New York, NY: Basic Books, 1983).
2. Patricia Gens, et al. "The Effects of Integrating a Multiple Intelligence Based Language Art Curriculum on Reading Comprehension of First and Second Grade Teachers" (Educational Document Reproduction Number 420 840; 1998).
3. Susan Mills, "The Role of Musical Intelligence in a Multiple Intelligences Focused Elementary School" (Educational Document Reproduction Number 441 737; 2000).
4. Timothy Lintner, "Multiple Intelligence and the Studying of the Civil War: Theory into Practice" *Southern Social Studies Journal* (in press); Jennifer Nelson, "Studying World War I by Using Multiple Intelligences," *Southern Social Studies Journal* 25 (1999): 12-27.
5. Inspired by Erinn Harder, "Remembering Continents and Oceans: Songs to Sing" (www.teachers.net/lessons/posts/1988.html).
6. A diagram of a Compass Rose can be found at www.enchantedlearning.com/geography/printouts/compassrose.shtml.
7. Access "Reading a Jolly Map" at www.education.com/common/resources/lp/soc/980608ko.html.
8. Robin Hepworth, "All Around the Globe—Using Cardinal Directions" (fga.freac.fsu.edu/1995/direction.html). "Willy and the Four Directions" is a part of this larger lesson on cardinal directions. The lesson is geared for fourth grade, so some adaptation may be needed. The story does not come with an accompanying pictorial reference map, so teachers will have to create their own Geotown County Fair map.
9. This lesson plan uses a picture book by Joan Sweeney, *Me On the Map* (New York: Scholastic, 1998). Go to the "lesson plan search engine" at www.successlink.org/great/g777.html and search under "K-5" and "geography." Another site that links language arts to geography can be found at www.mcps.k12.md.us/curriculum/socialstd/Econ_Geog.html, sponsored by the Council on Economic Education in Maryland and the Maryland Geographic Alliance.
10. A supplement to this activity can be found at www.nationalgeographic.com/resources/ngo/education/ideask4/k4neighbor.html.
11. Krista Weiss. Access "Captain Hook's Treasure" at www.lessonplanspage.com/SSK1.html. As this is a fairly extensive and detailed lesson, significant preparation time is required.
12. Diane Elaine Hill, "Learning a New Environment" (www.col-ed.org/cur/sst/sst64.txt).
13. Jordan Sicht, "Travel to Beautiful _____!!!" (www.lessonplanspage.com/SSTravelBrochures23.htm).
14. "Where I Live" can be found at www.eduplace.com/activity/neighborhood.html.
15. Access this lesson at the Utah Education Network (www.uen.org/Lessonplan/preview.cgi?LPid=1244).
16. Jannie Sneed, "Changes in the Weather." (www.teachers.net/lessons/posts/190.html).
17. Bill Chapman and Dawn Novak, "Our Town." (www.buildingrainbows.com/CA/lesson/lessonid/1013100847). Avoid the moving ads at this website.

Timothy Lintner *is an assistant professor at the University of South Carolina, Aiken.*