Education Professions Supplemental Curriculum Lesson Plan

Brain Based Learning
Brain Matters

Title of Lesson: Brain Based Learning: Brain Matters in the classroom.

Developed By: Jennifer Horen

Objective: The student will be able to identify strategies that enhance learning based on current brain research.

Essential Question: How can we translate brain research into current classroom practice?

Activities:
Use Patricia Wolfe's Brain Matters book.

1. PowerPoint presentation (also available in Smartboard Notebook)
    a. Go through the presentation that summarizes the key information from the book. I created notes to go along with the slides and then cut them and put them on index cards to use during the lecture. Incorporate opportunities for think/pair/shares as well as whole class discussions. Use "ticket out the door*"/"exit cards*" questions as daily assessments of learning objectives, depending on how much information you cover each day.
    b. Before you talk about how emotion aides memory, ask students to think about various experiences in their past. See slide for sample questions. Most of them can probably easily recall past memories of being hurt by a friend or their favorite birthday party. Positive or negative emotions associated with events help to move them to long term memory.
2. Graphic organizer
    a. The PP contains slides which graphically summarize the functions of the different types of memories, but I created one that summaries the key points for each memory. It is a helpful review to have the students draw out each section or fill in the blanks as you go.
3. Sensory Memory Activity
4. I-clicker Review (student response system). I created a review on PP to use with a student response system if you have one. If not, you can review just using the questions. Feel free to change or add questions as desired.
5. Brain Compatible Strategies
    a. Use a classroom set of books for students to read Part 3: Matching Instruction to How the Brain Learns Best. Divide the chapter into sections for pairs/small groups to use.
        i. Explain 3 levels of learning (concrete, symbolic, abstract) (see slide in presentation)
        ii. After reading their assigned section students should prepare to present a few of the recommended strategies/projects. They can choose to use the graphic

organizer in this lesson or create their own to summarize the information. Some possible free, mind mapping sites

- http://bubbl.us/
- http://www.mindmeister.com/

b. A possible follow-up activity would be to have students create a graph of a week of their own school assignments. They might use one of the above sites to create a graph/mindmap. A peer could analyze it to see which ones are brain compatible according to what they have just learned. The peer could also select the correct learning level (concrete, symbolic, abstract). Students could present their evaluations and offer suggestions for making assignments more brain compatible.

Materials:
Notebook/PP presentation
Instructor notes for slides
sample ticket out the door/exit card forms
Sensory memory hats
I-clicker review PP
Set of student response systems
Acronyms activity
Graphic Summary of 3 memories and key points, blank and answer key
Graphic organizer for brain compatible strategies/activities
Pat Wolfe book
Internet
Please see attached handouts needed for lesson(s)

Assessment:
Summative written assessment
Incorporate ideas into lesson plans
Create an informational brochure for parents/teachers
Take a different unit and update it by incorporating current brain research information gleaned from this unit.
Mindmap/graphic organizer of brain compatible strategies
Peer evaluation of school week assignments and presentation

Time: Suggested time: One week; Flexible depending on instructor.

Standard(s):
11.0 IDENTIFY INSTRUCTIONAL METHODS FOR STUDENT LEARNING
11.1 Investigate various methods of instruction
11.2 Identify teaching methods that accommodate various learning styles

13.0 APPLY TECHNOLOGY FOR INSTRUCTION AND MANAGEMENT
13.5 Integrate technology relevant to lesson planning, teaching, and classroom management and assessment

Technology Standards:
Strand 1: Concept 4: PO 2 Use digital collaborative tools to synthesize information, produce original works, and express ideas.