Active Teaching Active Learning: Are Today’s Students Engaged in Learning?

Indra R. Hershorin PhD, RN, CNE
Barry University
Miami Shores, FL. USA
E-mail: ihershorin@mail.barry.edu
A New Generation of Learners

- Different from the past.

- “Native speakers” of the digital language” (Prensky, 2001).

- Growing-up in a digital world surrounded by computers, video games, the Internet, smart phones, MP₃ players, computer tablets, and e-book readers.
Compounding the Nursing Shortage

- A nursing shortage of over 260,000 registered nurses in the US is projected by 2025 (Buerhaus, 2009).
- Nursing faculty shortage.
- Expansion of technologies used in clinical practice.
- Increased amount of content to cover in nursing curricula.
- Larger groups of students.
- Different types of learners.
What does this mean for Nurse Educators?

• Digital learners are challenging the traditional teaching paradigm in higher education.
• Educators struggle to stimulate interest, generate discussion, and provide vicarious learning.
• Creating a learning environment that will help students to succeed.
• Revisit and expand the horizon of delivery methods (Jackson & Crawford, 2008).
Teaching Strategies

- Lecture
- Case Study
- One Minute Paper
- Questioning – Students Response System
- Short Stories
- Film
- Video clips
- Podcast

- Novels
- Music
- Poetry
- Reflection
- Games
- Web Resources- websites, blogs, wiki, podcasts
- Story-telling
- Concept Map
Test results from two different groups of students in a Pediatric course.

Group 1 (n=45) received 15% of the course as Active Learning Exercises (ALEs).

Group 2 (n=25) received the same information in lecture format.

Results from a comprehensive pediatric exam given by an independent testing company were used to compare group performance.
Active Learning Exercises (ALEs)

- Case studies
- One-minute papers
- Computer generated concept maps
- Wiki (group project)
Case Studies

• Allow students to speculate, consider, interpret, contrast, compare, connect ideas and included focused questions.
• Provides opportunity for critical thinking.
• Require using the textbook.
• Peer-reviewed in the classroom.
• Topics – Gastroenteritis, Cerebral Palsy, Nephrotic Syndrome, VSD/Congestive Heart Failure, Iron Deficiency Anemia, and Otitis Media.
Example of a Case Study

- **Gastroenteritis**
- **Instructions:** Read chapter 53 p. 1543-1547, chapter 46 p. 1233-1242 and complete the case study on gastroenteritis.
- The case study will be peer reviewed in the classroom and must be typed.
- This assignment will account for 1% of the Pediatric Active Learning Exercises (ALEs) course grade.
One-Minute Papers

• Quick assessment of students perspective of a learning experience.
• Required students to be present in class.
• Video clips are used.
• Examples:
  • “Here for you” Helping Children Cope with Chronic Illness.
• **One-Minute Paper:** “Here for You” Helping Children Cope with Chronic Illness.

• **Environment**
Classroom

• **Purpose**
To help students synthesize information about the hospitalized child.

• **NCLEX® Connection**
Psychosocial Integrity/Coping Mechanism

• **Steps**
After watching the video “Here for You” write out five important concepts related to the hospitalized child. Was this information helpful to you? How will you use this information in the clinical setting?
• Active Learning Strategy.
• Used as a study aid

**Environment**
Classroom (in-class/out-of-class) // Individual Assignment

**Purpose**
Demonstrate to students the ways of protecting the client from health and environmental hazards.

**NCLEX® Connection**
Safety and infection Control/Accident/Injury Prevention
Implement seizure precautions for at risk clients

**Steps**
**Individual Concept Maps**

**Types of seizures**
- **Partial seizures (focal):** Abnormal electrical activity in one brain hemisphere or a specific area of the cerebral cortex.
- **Generalized seizures:** Diffuse electrical activity that begins in both brain hemispheres simultaneously. Movements and spasms are symmetrical and bilateral. (Tonic-clonic, grand mal seizures, petit mal, absence seizures)

**Seizures**
- **Pathophysiology:** Periods of abnormal electrical discharges in the brain that cause involuntary movement and behavior and sensory alteration.

**Epilepsy**
A chronic disorder characterized by recurrent, unprovoked seizures, usually caused by an underlying brain abnormality.

**Medications**
- Benzodiazepines (Diazepam, Lorazepam)
- Phenytoin
- Phenytoin (Dilantin)
- Carbamazepine (Tegretol)
- Valproic Acid (Depacon, Depakote)

**Nursing Management**
- Before a seizure: Obtain thorough history from parents or caregivers. Obtain details in regard to last seizure activity, length of time, presence of aura, and whether consciousness was lost. Provide safety by keeping bed rails up, padded room, or rails, and keeping clutter in the room to a minimum.
- During a seizure: Observe seizure activity, level of consciousness, vital signs, and signs of hypoxia. Provide safety. Protect child's head from injury. Do not stick anything in the mouth. If standing, assist child to the floor slowly and place in side-lying position.
- After a seizure: Provide oxygen therapy, administer adequate medications, and provide emotional support because seizures are frightening to both the child and parents.

**Diagnostic Tests**
- Complete blood counts
- Blood chemistry
- Urine toxicology
- Urine culture
- Lumbar puncture
- CT scanning, MRIs, and EEG.

**Seizure CONCEPT MAP**

**Seizures**
- **Definition:** Alteration in the firing of neuron in the brain as a result of cortical neuronal discharge that causes involuntary movement and behavior and sensory change.

**Pathophysiology**
- **Types of seizure**
  - Partial or focal-occurs in one brain hemisphere
  - Generalized-begins in both hemisphere at the same time
  - Focal, juvenile, infantile spasms

**Assessments**
- **Dx test**
- MRI
- CT scan
- Angiography
- ECG

**Medications**
- Benzo d i a z e p i n e (e.g., diazepam)
- Ph e n y t o i n
- Ph e n y t o i n (D i l a n t i n)
- Car ba m a z e p i n e (T e g r e t o l)
- V a l p r o i c A c i d (D e p a c o n, D e p a k o t e)

**Nursing Roles**
- Protect child during a seizure, position on the side and monitor vital signs
- Administer anticonvulsant as ordered
- Assist parents in understanding and accepting the diagnosis
- Promote child's self-image by encouraging expression of feelings and plans ways to promote acceptance and decrease fear among peers

**Jeneil Fraga**
• **Injury Prevention Wiki**

• **Purpose** - Allow students to incorporate knowledge of growth and development principles and prevention of injuries in children.

• **Supplies/Preparation**

The built-in Wiki on the Blackboard course learning management systems will be used for this project.

• Create a wiki to include the following:
  
  A description of the age group.
  
  Risk factors or hazards for the age group
  
  Developmental Characteristics
  
  Prevention

• Be as creative as you like. You can add images, video, urls, websites, text, color, etc.
Injury Prevention for School–Age Children

Injury Prevention for School–Age Children

School Age Description:
School age children range in age from 6 to 12. They demonstrate common characteristics of their age group. A sense of achievement in meaningful activities is important to develop self-esteem and to prevent a sense of inferiority or poor self-worth. In this stage, these children continue to acquire habits.

INJURY PREVENTION: SCHOOL AGE CHILDREN

Injury Prevention for Adolescents

A description of adolescence describes the teenage years with puberty, disorientation and discovery, struggles with issues of independence and self-identity, and may be with experimentation of drugs, alcohol or sexuality. Peer groups and external appearance become of high importance. They are no longer children but not yet adults.

Risk factors or hazards are substance abuse, delinquency, teen pregnancy, school drop-out, and violence.

Developmental Characteristics:
Cognitive:
- Transitioning from concrete thinking to abstract thinking
- Prefer active over passive learning experiences
- Are developing higher levels of humor

Moral:
- Generally idealistic to make the world a better place
- Transitioning from the focuses on “what’s in it for me” to that which considers the feelings and rights of others
- All times are quick to see flaws in others but slow to acknowledge their own faults

https://barry.blackboard.com/webapps/Bb-wiki-bb_bbs01/wiki/site?course_id=48317&group_id=44031
### Comprehensive Pediatric Exam Aggregate Report

<table>
<thead>
<tr>
<th>Exam</th>
<th>$n$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>45</td>
<td>72.6%</td>
</tr>
<tr>
<td>Group 2</td>
<td>25</td>
<td>72.6%</td>
</tr>
</tbody>
</table>
• Keep students engaged in the learning process.
• Meet the needs of today’s learners.
• Cover much needed content without affecting students performance.
• Help students to succeed.

THANK YOU