Integrating Physical Activity in the College Classroom: Strategies for Implementation

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Presentation Objectives
Attendees will...
• Justify integration of movement in the college classroom
• Compare experiences of activity implementation across classrooms
• Consider possible concerns and ways to diminish barriers to activity in the classroom
• Engage in example movement activities
• Prepare to offer movement in own classrooms

Stand Up Yes!!

1. I teach face-to-face.
2. I teach classes of 50+.
3. Seating in my classroom is flexible.
4. I teach STEM coursework.
5. I teach undergraduates.
6. I support college-level education in a non-teaching capacity.
7. I engage my students in movement in the classroom.
8. I’m excited to learn more about movement for my students!

Movement and Learning Research
• Helps students think deeply about content
• Physical activity and active learning strategies enhance:
  ○ Cognition
  ○ Attention and focus
  ○ Academic achievement
  ○ Engagement
  ○ Classroom motivation
  ○ Blood flow to the brain

Focus on College Students
• Link between activity and cognition even at cognitive peak
• Students spend about 30 hours/week in sedentary behavior
• Emerging focus on minimizing passive learning
• Movement in college classroom:
  ○ Increased focus and attention
  ○ Engagement and interaction
  ○ Student appreciation and enjoyment
• Professors may perceive barriers to offering movement
  ○ Resources to help!

Meet Dr. Miller
• Teacher, pet lover, traveler, reader
• Former K-12 Physical Education teacher
• 11th year at Midwestern State University
• Model movement in classes for preservice teachers
• Research projects: movement in the college classroom
• Trainings for inservice teachers and college professors
• Edited a Textbook on Movement Integration for K-12
Integrating Physical Activity in the College Classroom

Meet Dr. Lindt
- Teacher, rancher, wife/mother, crafter, nature-lover
- Former middle school English teacher
  - Integrated daily engaging activities
  - Created interesting activities with movement
- Doctoral Studies
  - Focus on educational psychology and individual differences
  - How to motivate students in the classroom
- 11th year at Midwestern State University
  - Model movement in classes for preservice teachers
  - Trainings for college professors

Meet Dr. Nicksic
- Teacher, reader, runner, nature-lover
- 10+ years at elementary and middle school
  - Inherently offered movement
  - Prompted doctoral studies
- Doctoral Studies
  - Focus on classroom physical activity
  - How to motivate students in the classroom
- Sixth year at Texas A&M University
  - Active engagement in class
  - Trainings for college professors

Our Foundational Teaching Goal
- to provide a meaningful and effective learning experience where students think critically and practice application of content

Why We Offer Movement
- Effective pedagogy: active engagement
- Observed benefits
  - Classroom climate
  - Attention and focus
  - Engagement
  - Interest and enjoyment
- Supportive evidence
  - Student learning preparedness and achievement

When We Integrate Movement
- Application of content
- Practice critical thinking
- Introduce topics
- Review of content
- Check for understanding
- Often in conjunction with exchange of ideas, as an opportunity to digest/reflect, or as an attentional reset

Barriers We’ve Overcome
- Student disinterest
- Disabilities
- Lack of space
  - Non-flexible seating
  - Chairs bolted to floor
  - Crowded classrooms
- Physical distancing requirements

Other Potential Concerns:
- Connecting to content
- Potential for noise and disruption
- Time availability
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How We Integrate Movement: Sample Activity

- Buddy Up
- Carousel
- Four Corners
- Jigsaw
- Musical Pairs
- Ready Set Share
- Stand and Stretch
- Stand up, Hand up, Pair up
- Stand up, High five, Affirmation
- Standing Partner Chat
- Two-jack Share
- Voting on the Move
- Walk and Talk / Move and Mull

Case Study: Voting with Your Feet

- Teacher Prep:
  - Create questions/prompts that elicit decision making or varying viewpoints.
  - Place questions in slides to display on the screen.
  - Display signs on the classroom walls or on the screen to indicate direction of movement. It is a continuum.
  - You can use “agree or disagree”, “true or false”, or a “this or that” type statement.
- Student Activity:
  - Students stand up behind their desk in a squared off space (if round tables students all move toward the center of the room).
  - Once the question is posed, students move to indicate their answer. For example, if they feel neutral they may stay in the middle, if they strongly agree they may move right, if they strongly disagree they move left.
  - After each question you can discuss the varying viewpoints.
  - Students may want to change their answer after the discussion.

Sample Voting with Your Feet Slide

College students’ behavior during movement can be proactively managed.

Agree  Disagree  Neutral

Virtual Sample Voting with Your Feet Slide

Movement in the classroom increases student engagement and focus.

True  False

Case Study: Musical Pairs

- Teacher Prep:
  - Create questions/prompts for discussion between students
  - Place questions in slides to display on the screen
  - Create a musical playlist with at least 4 songs
- Student Activity:
  - Start the music and tell students to move or dance around the room
  - Tell students that when the music stops, they need to find a partner
  - Place a question on the screen for them to answer and discuss with their partner
  - Choose a few groups to share out their response
  - Repeat until the questions are finished

Case Study: Carousel

- Teacher Prep:
  - Post blank pages around room, one per topic/question
  - List of topics/questions
- Student Activity:
  - 3-4 students per page write responses to topic
  - Groups rotate to each page - Read, Revise, Expand, Add
  - Back to first page: Group reviews all information and drafts single “takeaway”
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Carousel: Output Examples

Carousel: Tips for Implementation
- Limit prep by presenting slide with list of topics numbered
  - Students write topic by number
- Make the space work for you (and students)
  - Use hallway as needed
- Anticipate and respect limitations
- Break large classes into two rotation groups
  - Duplicate post-it topics
- More topics = Shorter rotations
- 60 seconds
- Use a course review
  - Tangible demonstration of learning

Teacher Perception of Student Response
- I notice maximized participation/engagement during movement activities.
- Good ideas come from the opportunity to discuss/digest and students often seem more willing to talk when debating.
- Students are often smiling and laughing.
- Students appreciate learning and experiencing a variety of learning and teaching strategies for their future classroom.
- Though they may be reluctant at first, students enjoyed moving around to find new partners or work in new groups.
- Increased participation from all, provides opportunities for all students to engage.

Student Reactions to Active Engagement
- Though I initially did not see the point in some of the activities that we would do in small groups, I quickly saw how helpful they were in reinforcing what was learned in lecture.
- These activities forced me to not only recall the information that was presented but to also think about the implications or how it relates to a bigger picture.
- Because of these activities I was not merely memorizing the information, but I was gaining an understanding of it.

Teacher Perception of Student Response
- Increased engagement: 83.34%
- Enhanced understanding: 64.29%
- Aided retention: 64.29%

Student Reactions to Specific Activities
- "The Carousel… was the most engaging… because we had to think of ideas so quickly which helped me retain it more."
- "Move and Mull really helped me maintain the information I learned because it gave me an opportunity to discuss what was lectured in lecture and clarify terms or concepts that were unclear to me."
- "Any time we had walk and talks I had to go back to my notes and refresh which allowed me to understand the material better. Also, hearing someone else’s thoughts was very helpful."

Quantitative Student Perception

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Statement Agreement (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two-Jack</td>
</tr>
<tr>
<td>Increased engagement</td>
<td>83.34%</td>
</tr>
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</table>
Lessons Learned

Start on day 1
Treat participation and engagement as regular class routine
Proactively explain reasoning
Simplify prep
Trial and error is okay
Be consistent and persistent

Breakout Activity: Virtual Move and Mull!

Directions:
1. As a group, determine your activity (jacks, squats, etc.)
2. Take turns responding to prompt
3. After each speaker, full group completion of 2 activity reps
4. Collectively after all share - reply, discuss, debate, inquire

Prompt:
- How have you used movement in your classes in the past? (Or why haven’t you?)
- What ‘nugget’ from this session will help you to engage your students in movement? (Or to promote active learning?)

Questions? Comments.

Resources:

Activity Ideas:
- https://classroomsinmotion.com/ (site created and maintained by Dr. Hildi Nicksic)

Research:

Thank you for attending!

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