Millennial’s Perspective of Clickers as an Active Strategy in Nursing Education

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### Faculty Disclosure

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Rebecca Toothaker</th>
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<tbody>
<tr>
<td>Conflicts of Interest</td>
<td>None</td>
</tr>
<tr>
<td>Employer</td>
<td>Bloomsburg University</td>
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<tr>
<td>Sponsorship/Commercial Interest</td>
<td>Internal Grant/Bloomsburg University</td>
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“There aren’t any icons to click. It’s a chalk board.”
Millennial students play a major role in the changing classroom dynamics.

Nursing faculty often favor traditional methods.

Student response systems involve the process of active learning through peer discussion and clarification.

Experiential learning that encompasses technology and evidence based educational strategies can lead to a more interactive classroom environment that draws the millennial student’s attention (Montenery et al., 2013).
The purpose of this study was to explore millennials’ perspectives of clicker technology (student response systems) as an active strategy in a nursing classroom.
Engagement of learners is essential to the millennial generation (Stevens & Gunther, 2016).

Clickers can be perceived as a tool that has the potential to improve student engagement and motivation (Johanson, 2012).


When learners are engaged in the process in the classroom they become motivated in learning (West, 2014).
Digital Divide

Digital Immigrants
- Adopters of the web technologies
- Prefer to talk in person
- Logical learners
- Focusing on one task at a time
- Prefer to have interaction with one or few people rather than many
- Get info from traditional news sites

Digital Natives
- Born during or after the digital age
- Always on, attached to a phone or other device
- Intuitive learners
- Multitask and rapidly task-switch
- Extremely social
- Multimedia oriented
Methodology

- A mixed-method study
- 9-item questionnaire to explore perceived levels of student perception of the technology of clickers in a nursing classroom
- Two cohorts of nursing students in the sophomore and senior level of the nursing program.
- The numerical data was analyzed using descriptive statistical analysis and the narrative comments was analyzed using qualitative content analysis.
Participants

- 99 students: 74 sophomores 25 seniors
- Enrolled in a nursing course
- Engaged in clicker technology over 12 weeks
- Females 92% Males 8%
- Age: 18 to 34 years of age
- Millennial generation
<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of clickers helps me to develop a better understanding of the subject matter when compared to traditional lecture based class.</td>
<td>38%</td>
<td>53%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>While using the clickers, I felt more involved in the classroom.</td>
<td>42%</td>
<td>48%</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>The use of clickers enabled more interaction with other students.</td>
<td>15%</td>
<td>37%</td>
<td>26%</td>
<td>18%</td>
<td>4%</td>
</tr>
<tr>
<td>As a result of using clickers, I felt more engaged and involved in the nursing classroom.</td>
<td>36%</td>
<td>54%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>As a result of using clickers, I felt more comfortable participating in classroom discussion.</td>
<td>27%</td>
<td>41%</td>
<td>21%</td>
<td>11%</td>
<td>0%</td>
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<tr>
<td>Questions N=99</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
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<tr>
<td>Clicker questions provided the professor to respond to concepts I did not understand.</td>
<td>40%</td>
<td>49%</td>
<td>7%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>Clickers have been beneficial to my learning.</td>
<td>42%</td>
<td>48%</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Clickers help me pay attention in class.</td>
<td>33%</td>
<td>45%</td>
<td>12%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Clicker questions helped me to know how well I was learning the material.</td>
<td>56%</td>
<td>38%</td>
<td>5%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Cronbach’s alpha of 0.91.</td>
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Key Results

- 94% felt that clicker questions helped them personally to know how well they were learning the material being presented in the classroom.

- 91% percent of the students agreed or strongly agreed that the use of clickers helped them to develop a better understanding of the subject matter when compared to traditional lecture based class.

- 90% reported enhanced perception of interaction in the classroom.
Top Student Comments

- “The clickers helped us know if we gained knowledge in class.”
- “The questions help me focus on material during lecture. After lecture, I knew the answers to the ones I didn’t know at the start of class.”
- “I was able to apply the concepts right away and helped me to remember for future use.”
- “The use of pre-quiz and post-quiz showed me how much I learned in class.”
- “Helped to direct my learning.”
Implications for Nursing

- The National Council State Board of Nursing (NCSBN, 2016) supports active learning strategies that encompass evidenced-based educational strategies.

- Teaching strategies within nursing education need further assessment and revision based on the specific learning needs of Millennials.

- An active educator role is necessary to promote dialogue and metacognition among students with the implementation of clicker technology.

- A repeat of the study with a larger sample of students that explores an increase of knowledge with clicker technology is recommended.
References


