Incorporation of Digital Badges in a Pharmacy Skills Lab

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INTRODUCTION

Digital Badges

- An electronic, graphical representation of an accomplishment, experience, skill demonstration, or competency.
- Many gaming platforms use them to reward players for completing specific tasks.
- In higher education...
- Badges can provide a common way to represent learning outcomes and give a visual representation of skill-based abilities which may be of interest to future employers.

Methods

- Eight digital badges were offered in fall 2016.
- Based on experiences, skills, accomplishments, and competencies learned in the course (vital signs, blood pressure, glucose meter education, performance on OSCEs).
- Badge criteria included a combination of performance on required course activities and completion of extra credit activities outside of class (see badge criteria listed in table).
- Badges were designed & awarded online with Credly (credly.com).
- Basic information on digital badges including how to manage/share badges was provided to students.
- Students can manage all badges on Mozilla Backpack (backpack.openbadges.org) & share on various platforms (e.g., Facebook, LinkedIn, portfolios).
- Earning digital badges was not a course requirement.

Survey Development

- Administered via Qualtrics (Provo, UT).
- Students asked to respond twice.
- Number of digital badges earned in fall semester CAPP I course.
- Perceptions of digital badges in general & specifically for the CAPP I course.
- Anticipated use of digital badges and how they plan to share badges with others.
- Sent to all students enrolled in CAPP I during the fall semester 2016.

Analysis

- Descriptive statistics and visual graphs utilized to report the number and types of badges earned as well as student survey responses.
- Auburn University Institutional Review Board (IRB) approved as “Exempted” protocol.

Fall 2016 - 143 students enrolled in CAPP I.
All but 1 student earned at least 1 badge; 2 students earned all 8 badges.
59.4% of the class (85 students) earned 3-5 badges.
- Badges requiring work outside of class were earned by fewer students (vital signs exemplar, blood pressure, glucose meter education).
- Partial credit was awarded for assignments, however full credit was required to meet criteria.
- 36.6% of students who earned at least 1 badge (52 students) accepted their badges on Credly.

RESULTS

NUMBER OF BADGES STUDENTS EARNED

<table>
<thead>
<tr>
<th>Badge Title</th>
<th># Badges Issued (%)</th>
<th># Students Accepted (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VITAL SIGNS</td>
<td>130 (96.5%)</td>
<td>48 (34.8%)</td>
</tr>
<tr>
<td>VITAL SIGNS EXEMPLAR</td>
<td>44 (30.8%)</td>
<td>22 (50.0%)</td>
</tr>
<tr>
<td>BLOOD PRESSURE</td>
<td>56 (39.2%)</td>
<td>30 (53.6%)</td>
</tr>
<tr>
<td>GLUCOSE METER EDUCATION</td>
<td>26 (18.2%)</td>
<td>13 (50.0%)</td>
</tr>
<tr>
<td>BLOOD PRESSURE MASTER</td>
<td>83 (58.0%)</td>
<td>44 (52.4%)</td>
</tr>
<tr>
<td>GLUCOSE METER MASTER</td>
<td>93 (65.0%)</td>
<td>36 (38.7%)</td>
</tr>
<tr>
<td>PATIENT INTERVIEWING MASTERS</td>
<td>84 (58.7%)</td>
<td>31 (36.9%)</td>
</tr>
<tr>
<td>NEW RX COUNSELING MASTERS</td>
<td>90 (69.2%)</td>
<td>37 (37.4%)</td>
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</table>

| COMMENTS |
| "I like the idea of having a digital representation/reward about how I am doing and things that I excel at doing."
| "I think digital badges were a great addition to the course, and they motivated me to do my absolute best."
| "I'm more motivated by actually being able to do the skill and my intrinsic desire to learn than by the desire for a badge that comes with the skill..."

IMPLICATIONS

- Students perceive digital badges as a beneficial tool for enhancing student learning, however it is not a motivating factor for everyone.
- Students would likely benefit from further instruction on how they can organize and share digital badges.
- Students may not be as motivated to complete activities outside of class in the future without providing bonus points.
- It may be advantageous to be more selective in issuing badges. More value may be perceived if they were used to highlight special skills or important milestones, instead of for each skill. This should help minimize “badge fatigue” & simplify sharing.
- Plan early! Creation of the criteria, building the badges, and awarding badges takes time.

REFERENCES

4. Scan here for presenter contact information