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Grading by Experience Points: An Example from Computer Ethics

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Edward F. Gehringer
Computer Science, NC State University

“Good morning ... you all have an F...”

- Lee Sheldon’s 2012 book is on grading by experience points (XP).
- Each student begins as a level-1 avatar, can rise to level 12.
- Students can never lose points by doing an assignment, only gain.

Our course—Ethics in Computing
- Required 1-credit course for computer-science majors.
- Major topics
  - Ethical principles
  - Intellectual property
  - Security
  - Malware
  - Software safety

The grading scheme
- Signed sheet for ethical analysis – assignment.
- Required 1.
- “Good sport:” For not taking teacher reviews.
- Super Shine: posting 7-9 comments.
- Intellectual property
  - “Hmm:” For a comment that they believed things were.

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The Process

Students choose a topic for the various rounds of ethical analyses,
... then submit their work.
After two rounds of peer review,
the instructor/TA assign scores
... then score the students’ reviews.

Grades: Bimodal at the extremes
This is what the grade distribution would have been if I hadn’t lowered cut-offs for grades below B.

What the data shows

Survey results

Students in the XP class were moderately supportive of the peer-review process, but less supportive than students in other classes.

<table>
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<tr>
<th>Question</th>
<th>Green – good outcome, &gt; 4 out of 5 on neg.-phrased question</th>
<th>Red – suboptimal, &gt; 3 out of 5 on neg.-phrased question</th>
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High-school biology class
- Points for doing homework, passing quizzes.
- Successive levels require twice as many points as previous levels.

Teaching with Technology
- U. of Arizona South
- Multiple asssts. in each content area, successive levels of Bloom’s taxonomy.
- Hundreds of available asssts. in dozens of content areas
- Achievements recognize accomplishments
- Exemplary performance on an assignment
- Aggregate skill point totals
- 5 categories of skill points, secret achievements

LSU Intro. to the Study of Education
- Reflective blogs – achievements
- Shine: posting 4-6 comments/week
- Super Shine: posting 7-9 comments
- Mega Shine: posting ≥ 10 comments
- Achievements for content
- High Five
- Hmm: For a comment that they believed now but might reconsider later
- Good sport: For not taking teacher’s comments personally

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