The Academic Bulletin
from the Office of the Provost of Calvin College
Friday, November 16, 2018

Exam Writing: How Much Is This Worth?

The Calvin Teaching and Learning Network (CTLN) conducts a program for new faculty focused on teaching more effectively. Following a session on writing exams, Chris Hartemink (Engineering) revised the way he writes exams to better identify a student’s level of understanding. With his permission, we distilled his account and share his revisions below.

I teach a rigorous, upper-level course with high cognitive load. I am concerned that most test outcomes are bimodal (many grades below 60 and above 95). If I make tests easier or harder in order to address one group, I risk moving the other group even further to the extreme. I also have concerns about the meaning of a grade. While it seems natural to make the hardest/longest part of a question worth the most points, understanding the hardest part of a topic should be the difference between an A and a B, not an A and an F. That is, it should be worth about 10% of the grade, not 50%. I also struggle with the idea of whether ‘meeting all the learning objectives’ is the definition of an A (a successful semester!) or is the definition of a C (the bare minimum).

So, based on discussions in CTLN and an informal chat with my ninth-grader’s history teacher (who has no idea I was so impacted), I pivoted toward an idea known as specification grading, or “moving up a grade ladder” according to meeting certain specifications. Rather than seeing a question as worth 10 total points, and you get whatever you get when I summed the parts, I recast my problems as a three-rung ladder, with each part reflecting a different level of difficulty:

A. If you can solve the most straightforward aspect of a problem needed to proceed to later classes, then it should be C level. This means the most basic part of the problem should be worth 6–7 points out of 10 possible!
B. The next rung is a slight twist that requires a deeper level of understanding. If you can solve this, I consider you B level, and the cumulative points in parts A and B should be 8–9 out of 10 possible.
C. The final part of the problem should test the ability to connect concepts in a more thought-provoking scenario. This part is only worth 1–2 points, even though it may take some time to complete.

After implementing this strategy on one (caution!) test, student feedback reflected a very high satisfaction rate. They better understood how they earned their grade and increased confidence working through a problem’s increasing complexity. I liked the change because the grade range tightened up (fewer A+’s and fewer F’s) and seemed to better represent the actual level of understanding (below average to excellent). I also enjoyed writing questions with more complexity variation—it was a nice challenge.

Crystal Bruxvoort, Jim Jadrich, Kyle Heys, teaching fellows
Be sure to fill out your Faculty Activity Reports regularly. If you have questions, see the FAQ page.

### Coming Up on Campus (Check the campus calendar for a full list of events)

**Monday, November 19**
- Chapel. Reginald Smith, “I AM: The Way, the Truth and the Life (John 14:6).” 10:00 a.m., Chapel
- The 4:04 gathering. Cynthia Slagter (Spanish). 4:04 p.m., Hekman Library, 3rd floor

**Tuesday, November 20**
- Chapel. Taizé with Karen Saupe and Stacey Wieland. 10:00 a.m., Chapel

**Wednesday–Friday, November 21–23**
- Thanksgiving break (Wednesday: campus open, but no classes; Thursday–Friday: campus closed)

**Monday, November 26**
- Chapel. Michelle Loyd-Paige, “I AM: The True Vine (John 15:1).” 10:00 a.m., Chapel

**Tuesday, November 27**
- Chapel. Taizé with Karen Saupe and Stacey Wieland. 10:00 a.m., Chapel

**Wednesday, November 28**
- Chapel. Faith through Chemistry, with Ken Piers. 10:00 a.m., Chapel

**Thursday, November 29**
- Chapel. Sounds of American folk worship, with Luke Enders. 10:00 a.m., Chapel
- Mathematics and Statistics colloquium. Yew Meng Koh (Hope College). 3:40 p.m., NH 276
- The 4:04 gathering. Frans van Liere (History). 4:04 p.m., Hekman Library, 3rd floor

**Friday, November 30**
- Chapel. Student worship team. 10:00 a.m., Chapel
- Christian Perspectives in Science seminar. Derek Schuurman (Computer Science), “Discerning a Christian Approach to AI.” 3:30 p.m., SB 110
- Talking about Madeleine L’Engle. 3:30 p.m., Meeter Center Lecture Hall
- An Evening Celebrating Madeleine L’Engle at 100. 7:30 p.m., Gezon Auditorium