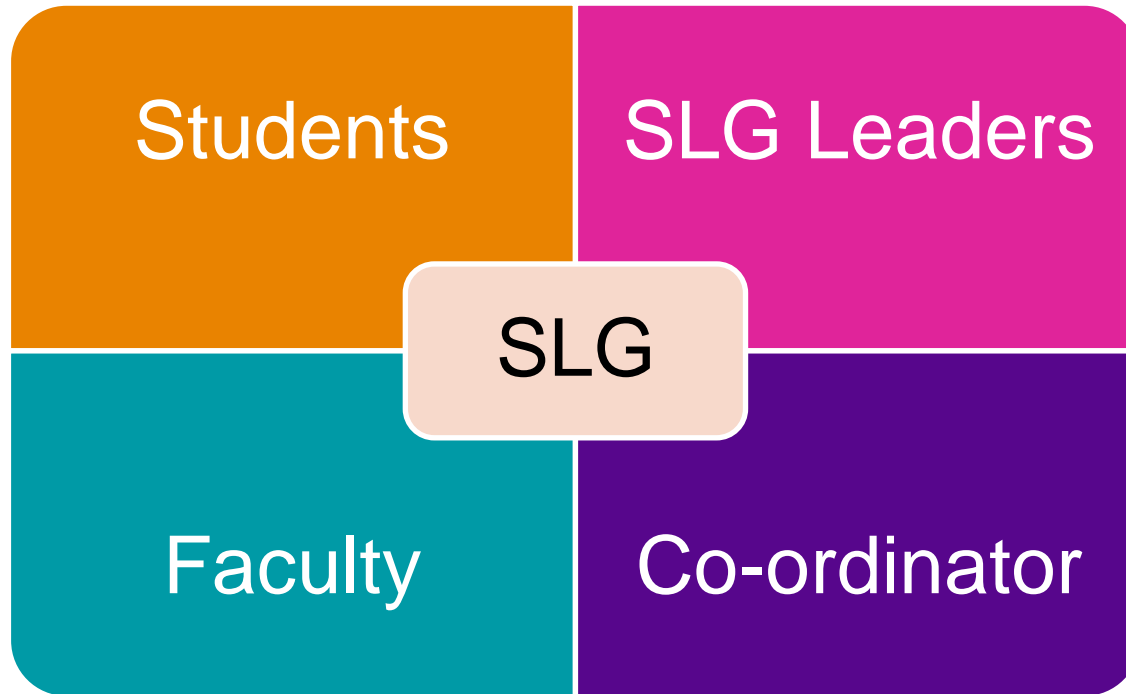


# Making Learning More Visible: Reflections on the Launch of Supported Learning Groups (SLG)



# SLG: From Co-ordinator's Perspective



# Course Section Criteria

- **Sr. Admin support**
- **Faculty buy-in**
- High enrollment
- Student perceived difficulty
- DFW rate
- Foundation course
- Degree pathways

# SLG Leaders

- Integrate “how to learn” with the “what to learn”
- Model students
- Each Leader runs two 1.5 hour sessions/week
- Training and mentoring



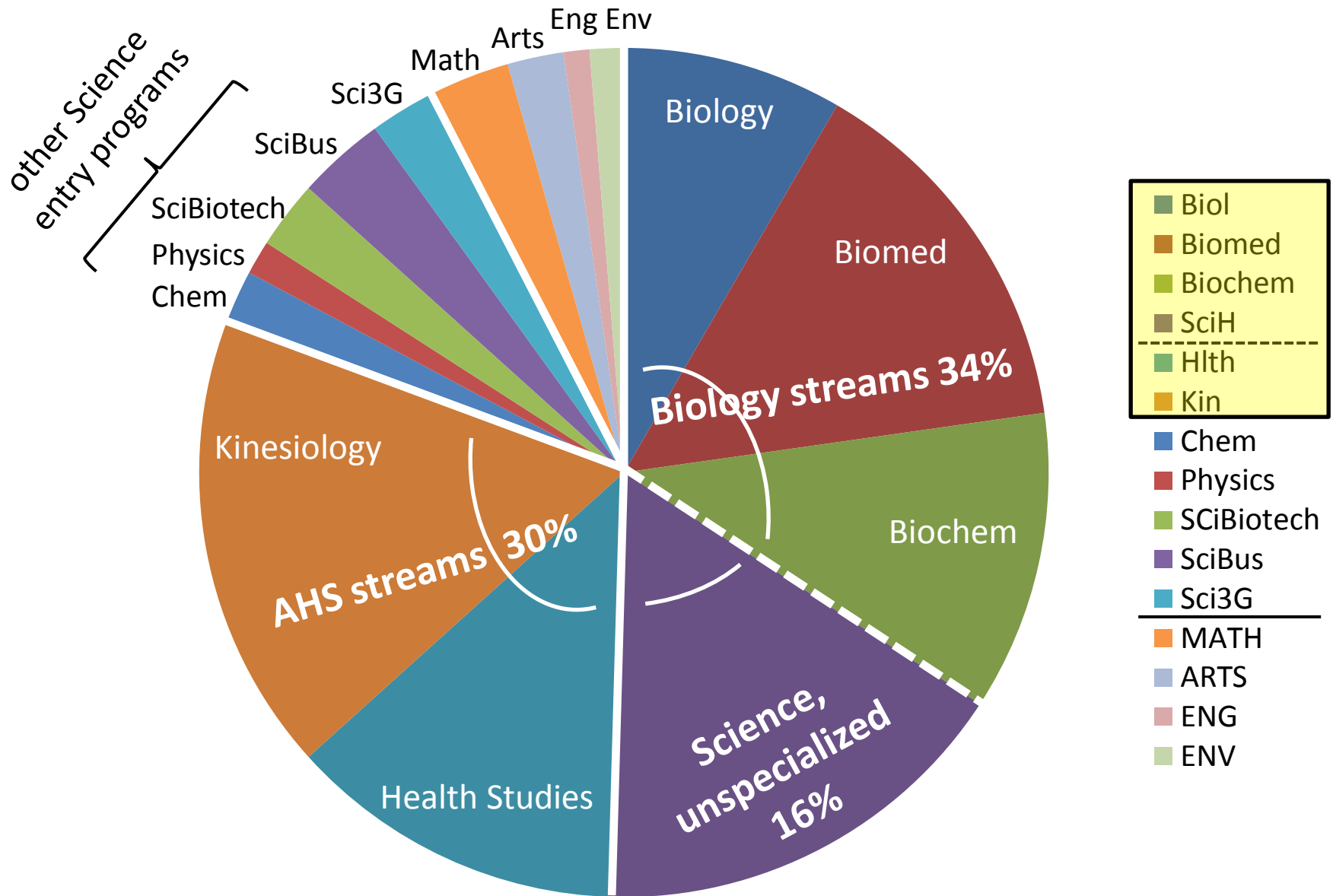
# Biology 130 Intro Cell Biology: Course Structure

- lectures 2 x 80 mins weekly  
3 sections (fall 2014), 4 sections (fall 2013)
- tutorials 1 x 50 mins, selected weeks  
29 sections of ~55 students each
- team-taught, but administered as one 'mega-class'
  - content divided between two instructors
  - instructor delivers his/her content to all sections
- also runs in winter (starting 2014), on smaller scale

# Biology 130 Intro Cell Biology: Students

- term 1A course required by many programs in Science  
*e.g.* Biology, Biomedical Science, Biochemistry  
Biotech/Chartered Accounting, Biotech/Economics  
Life Physics, Materials & Nanosciences, *et al.*
- service course for AHS
  - Kinesiology and Health Studies programs
- prerequisite for many courses beginning second year (most programs) or term 1B (Kinesiology)
- enrolment
  - fall 2013 1,500 students (4 sections)
  - fall 2014 1,345 students (3 sections)

# Who took Biol 130 in Fall 2014?



- Six groups (Biology streams + SciH + AHS streams) make up 80% of the class.
- The vast majority (85%) of the class are 1A students.

# SLG: From Instructor's Perspective

important:

- introduced / enthused about SLG program at intro class
- met (sort of) weekly with SLG Leaders (Leaders mostly supported by SSO coordinator)
- allowed in-class announcements by SLG Leaders at beginning of term and periodically throughout term

optional / course-dependent:

- made unit worksheets available to SLG Leaders as a fall-back for sessions (worksheets already developed, and available to all students via Learn)
- before term – sent 'invitation' to selected students of previous cohort, alerting them to job posting for SLG Leader positions



# SLG: From a Leader's Perspective

## Why I wanted to be an SLG Leader

- Pursue interest in peer mentoring
- Make connections

## Benefits for the SLG Leader

- Valuable facilitation skills
- Review course content
- Time management



# SLG: From a Leader's Perspective

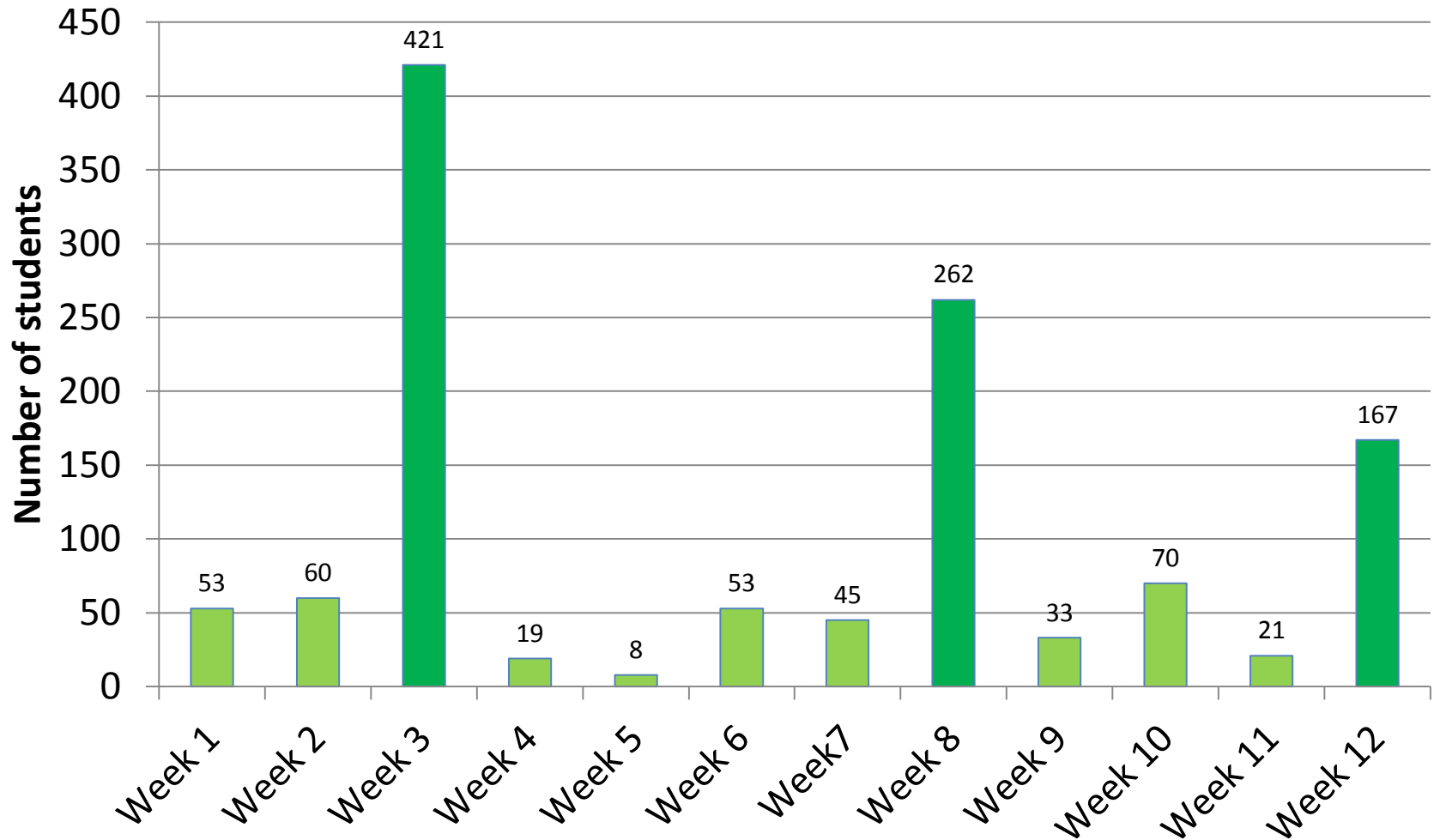
## A typical SLG session...

- ~10-15 students
- Warm-up questions, 2-3 main concepts from lecture, closing activity

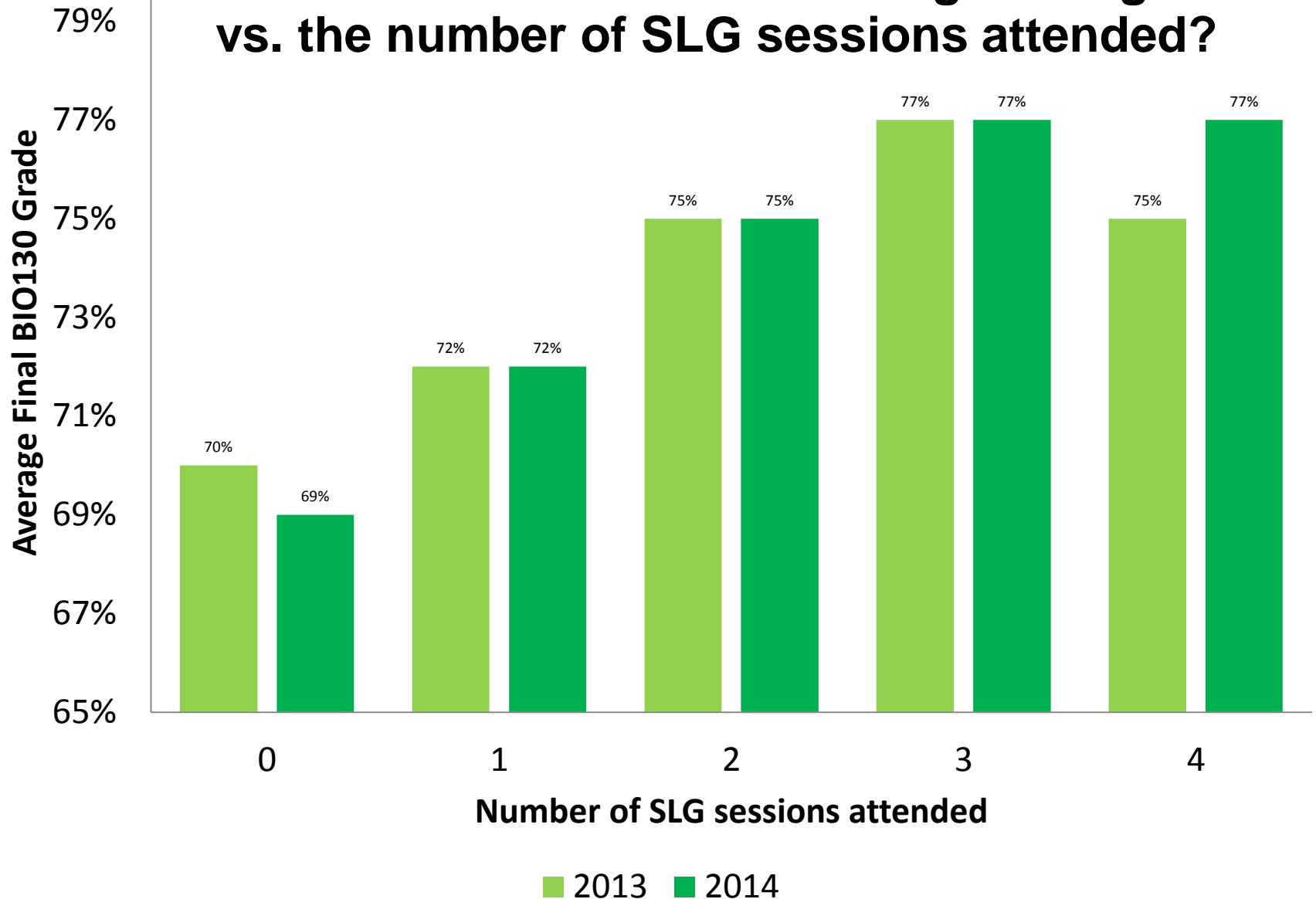
## Benefits for the students

- Learn how to learn
- Time set aside for content review
- Social connections

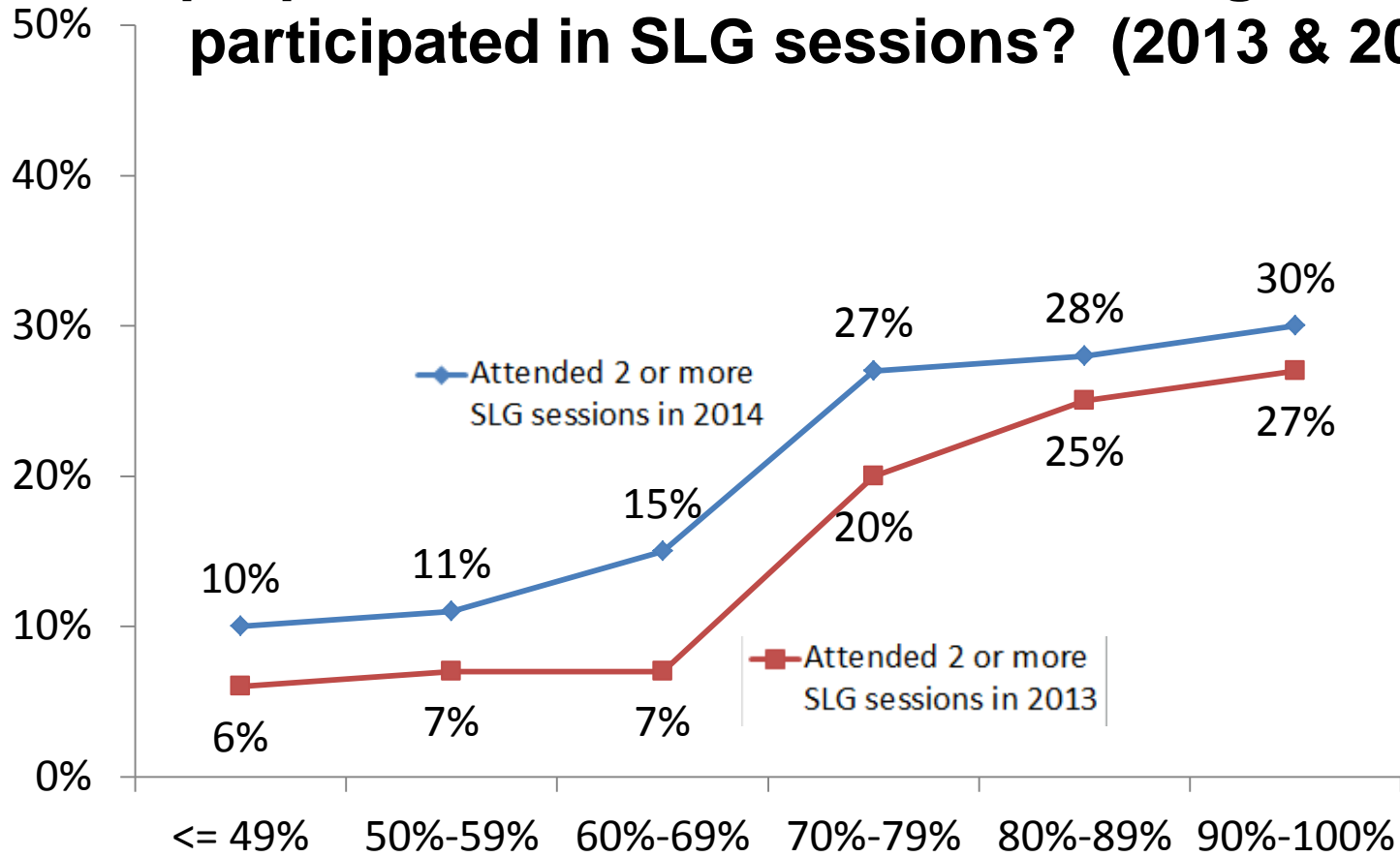
# How many students came out to SLG sessions (2014)?



# What is the distribution of average final grade vs. the number of SLG sessions attended?



# What proportions of students across the grade spectrum participated in SLG sessions? (2013 & 2014)



| Total Students | Final Grade Distribution |         |         |         |         |          |
|----------------|--------------------------|---------|---------|---------|---------|----------|
|                | <=49%                    | 50%-59% | 60%-69% | 70%-79% | 80%-89% | 90%-100% |
| <b>2013</b>    |                          |         |         |         |         |          |
| n=1512         | 145                      | 118     | 328     | 475     | 361     | 85       |
| %              | 10%                      | 8%      | 22%     | 31%     | 24%     | 6%       |
| <b>2014</b>    |                          |         |         |         |         |          |
| n=1278         | 149                      | 92      | 241     | 401     | 313     | 82       |
| %              | 12%                      | 7%      | 19%     | 31%     | 24%     | 6%       |

In 2014, of all students who received between 60%-69% as their Final Grade, 15% attended 2 or more SLG sessions.

# What were the final grades of students that attended SLGs versus those that did not? (2014)

| Number of SLGs attended | Final Grade (avg) – attended SLGs | Final Grade (avg) – did not attend any SLG session | Difference |
|-------------------------|-----------------------------------|--|------------|
| 1 or more sessions      | 74%                               | 69%  | 5%*        |
| 2 or more sessions      | 76%                               | 69%  | 7%*        |
| 3 or more sessions      | 77%                               | 69%  | 8%*        |
| 4 or more sessions      | 78%                               | 69%  | 9%*        |

\*statistically significant compared to group that did not attend SLGs at  $p < 0.001$

Attending SLG sessions is a behaviour associated with students achieving comparatively higher final grades.

These differences are statistically significant, but do not imply a causal relationship.

# What were students' perceptions of how SLGs impacted their learning?

| SLG Sessions helped me... | Better understand course material | Improve my test-prep techniques | Improve my note-taking skills | Feel connected with my classmates |
|---------------------------|-----------------------------------|---------------------------------|-------------------------------|-----------------------------------|
| <b>Fall 2013</b>          |                                   |                                 |                               |                                   |
| Agree/strongly agree      | 64%                               | 39%                             | 23%                           | 35%                               |
| <b>Fall 2014</b>          |                                   |                                 |                               |                                   |
| Agree/strongly agree      | 67%                               | 50%                             | 21%                           | 28%                               |

80% of students who attended an SLG Session would strongly recommend the program to their fellow classmates.

# Supported Learning Groups (SLG) Resources

- Blanc, DeBuhr & Deanna C. Martin 1983 Breaking the Attrition Cycle: The Effects of Supplemental Instruction on Undergraduate Performance and Attrition. *Journal of Higher Education* 54:80-90.  
<http://www.jstor.org/stable/1981646>
- Congos & Schoeps 1993 Does supplemental instruction really work and what is it anyway? *Studies in Higher Education* 18:165-176. DOI: 10.1080/03075079312331382349
- Dawson, van der Meer, Skalicky & Cowley 2014 On the Effectiveness of Supplemental Instruction: A Systematic Review of Supplemental Instruction and Peer-Assisted Study Sessions Literature Between 2001 and 2010. *Review of Educational Research* 84:609–639. DOI: 10.3102/0034654314540007
- Malm, Bryngfors & Mörner 2011 Supplemental Instruction: Whom Does it Serve? *International Journal of Teaching and Learning in Higher Education* 23:282-291. [w.cideronline.org/podcasts/pdf/18.pdf](http://w.cideronline.org/podcasts/pdf/18.pdf)
- Malm, Bryngfors & Mörner 2012 Supplemental instruction for improving first-year results in engineering studies. *Studies in Higher Education* 37:655–666. DOI: 10.1080/03075079.2010.535610
- McGuire 2006 The Impact of Supplemental Instruction on Teaching Students *How to Learn*. *New Directions for Teaching and Learning* no. 106. DOI: 10.1002/tl.228
- Rath, Peterfreund, Bayliss, Runquist & Simonis 2012 Impact of Supplemental Instruction in Entry-Level Chemistry Courses at a Midsized Public University. *J Chemical Education* 89:449–455. DOI: 10.1021/ed100337a
- International Center for Supplemental Instruction (UMKC) <http://www.umkc.edu/asm/si/>
- Supplemental Instruction in Canada (Guelph) <http://www.canadiansi.uoguelph.ca/>