

# Learning Together: Best Practices in Collaborative Testing

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# Outline

- Collaborative Testing?
- Impact
- Examples/Samples
- Best Practices
- Discussion/Questions

# Collaborative Testing?

- Collaborative Testing
  - Type of collaborative/cooperative learning
  - Students complete graded assessments in small groups.
    - Tests, quizzes, exercises, etc.
    - 2 to 6 students
- Testing (at individual level) (LoGiudice et al, 2015)
  - Direct benefit
    - Testing effect
      - Increasing retention of known information
      - Successful recall (memory retrieval) improves future recall
      - More challenging the recall, the greater the effect
  - Indirect benefits
    - Benchmarking student performance
    - Encouraging pacing/studying
    - Identify knowledge gaps

# Impact of Collaborative Testing

- Positive
  - Student Perceptions
    - Increased enjoyment, engagement, enthusiasm, motivation to learn
    - Decreased test anxiety
    - Promotes co-operation with peers and positive perceptions of learning and the testing process
    - Increased perceptions of overall performance of instructor
  - Student Behaviors
    - Complete more assigned readings
- Mixed
  - Initial collaborative performance better than individual performance
  - Delayed posttest performance
    - Transfer test (Yes) vs. Retention tests (No)
    - Identical (Yes) vs. Unique items (Mixed)
    - Differences in delayed transfer of concepts
  - More improvements in struggling students and newer university students
- Grades not capturing all of learning.

# Examples & Samples

- Introduction to Psychology & Health Psychology (LoGiudice, Heisz, & Kim, 2021) & Cost Accounting (Clinton & Kohlmeyer, 2005)
  - Individual then Group Quizzes - 15 multiple choice quiz items over 30 minutes
  - Individual Final Exam
- Introduction to Sociology (Slusser & Erickson, 2006)
  - Quizzes with 3 to 5 open ended questions
- Social Psychology & Introductory Statistics (Bozeman et al, 2023)
  - Psychology – 4 Group Exams with 20+ multiple choice with 1 short-answer
  - Statistics – 14 Weekly Quizzes with 5 multiple choice items alternating between individual and group
- Social Sciences Statistics (Eastridge & Benson, 2020)
  - Group Exam - 5 days - Individual Exam (4 exams)
- Undergraduate Parasitology (Peng et al., 2023)
  - Individual Midterm test (20 items) – Group Midterm test – Teacher feedback – Individual Final Exam
- Immunology and Endocrinology (Zhang & Handerson, 2017)
  - Individual test – Group test with justification for answer changes – Individual Final Exam

# Best Practices of Collaborative Testing

- Two stage format
  - Individual then group (same test)
  - Individual and team assessment (same time)
- Group member selection
  - Assigned or self-selection of team (=)
  - Same group or different group across semester (=)
- Characteristics of learning groups
  - Group size – 3 to 5 students
  - Interdependence
  - Individual accountability
  - Social skills – trust, group identity, communication
  - Heterogeneous group members
- Require Group consensus
  - Promotes engagement across all members
  - Require justification of answer changes
  - Conflict may arise

# Discussion & Questions

- Thank You!
- Discussion – Share your experiences and thoughts
- Questions?

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