



Maximizing Learning via Group Work

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On average, how much do you use group work in your class?

- Not at all
- Sometimes
- Often
- All the time- every class

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Agenda

Research on Active Learning and Group Work

Discuss and Engage in a Variety of Group Activities

Making Research Based Changes in your Classroom

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Why is Group Work Important?

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Employers want....

- Teamwork skills
- Communication skills



Koc (2011); Costigan & Donahue (2009)

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Group Work Works!

Springer et al. (1999)

Increases in...

- Achievement
- Persistence
- Attitudes



Meta-analysis of 37 studies!

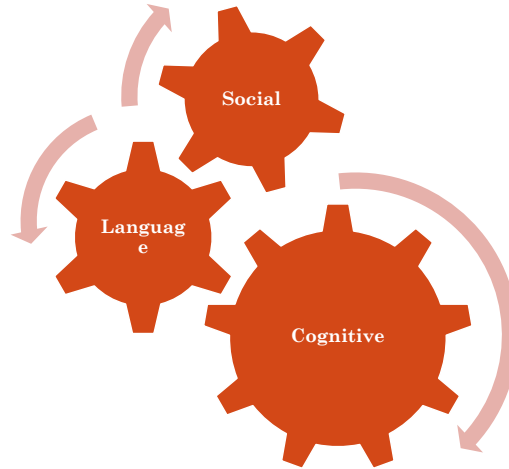
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Vygotsky's Sociocultural Theory



www.eea.usp.br



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Not all group work is equal...

Unstructured Group Work

- Talk to others about a topic
 - May get off topic
 - Monopolizers/Social loafers
 - Minimal investment

Cooperative Group Work

- Structured
- Clear purpose
- Everyone is involved and accountable



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Brainstorming- The Power of Groups?

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Brainstorming- The Power of Groups?

Brainstorm

Work together to
create a list

Nominal

Work independently
until I tell you, then
share answers to
create a list

Better
Quality
and
Quantity

(Mullen et al., 1991)

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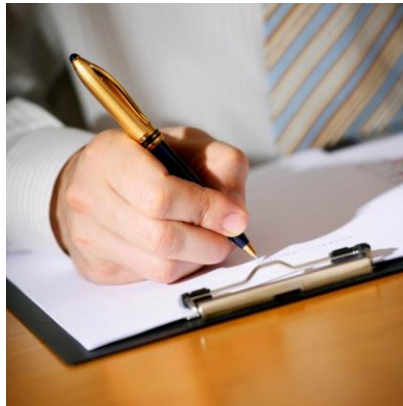
Problems with Brainstorming



- **Production Blocking**
 - My idea is not “good enough”
 - Forget idea by time other member is finished
- **Group Think**- support others and avoid conflict
- **Social Loafing**- view contribution as not important or needed

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Brainwriting
(Paulus & Yang, 2000; Heslin, 2009)

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Jigsaw Classroom (Aronson et al., 1978)

HOME BASE GROUP:
3-5 students

EXPERT GROUP:
Work together to learn the topic and be ready to teach your home base group members

HOME BASE GROUP:
Teach each other

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Your Task:

Decide on “experts”:

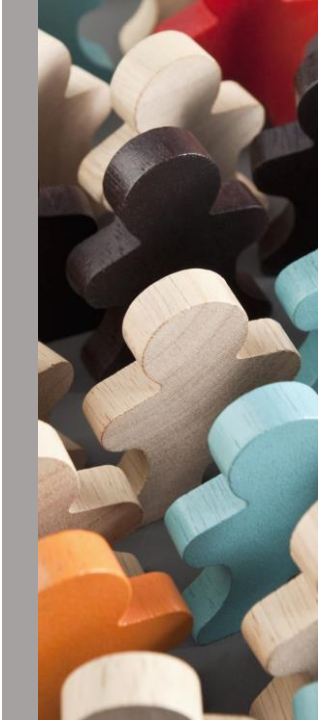
1. Self-selection vs. assigned groups
2. Strategies to equalize workload
3. Grading group work

In “expert” groups:

- Discuss the topic
- Determine 2-3 most important points
- Be prepared to “teach” your home base group members- they are depending on you!

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In Expert Groups, Answer:

SELF-SELECTION vs. ASSIGNED GROUPS

Should you allow students to choose groups or should you assign students to groups? Why?

EQUALIZING WORKLOAD

How can you reduce social loafing and increase the likelihood that all students are contributing?

GRADING

Should you give individual, group, or combination grades? What are the advantages and disadvantages of each approach?

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Jigsaw Classroom

(Walker & Crogan, 1998)



- Improved academic performance
- Better attitude toward peers
- Reduced prejudice

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Self-Selection Vs. Assigned Groups

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Assign Groups



Assign Groups to avoid homogeneous groups and to increase individual and group outcomes

(Hinds et al., 2000; McClelland, 2012)



Self-selection has **NEGATIVE** impact on minority and low ability students (Shimazoe & Aldrich, 2010)

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Optimizing Creativity (Paulus, 2000)

Cognitive diversity leads to more ideas

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Change Groups After a Few Sessions

- Changing groups led to better results than groups who stayed together for more than half a semester (Tomcho & Foels, 2012)

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Strategies to Equalize Workload

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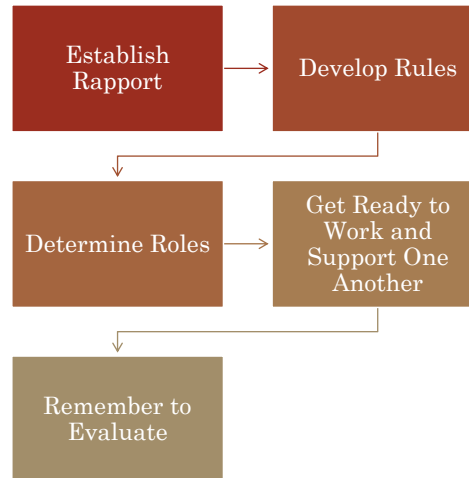


**Group
Training,
Rules and
Roles**

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The 5R Approach to Group Work (Harrington, 2022)



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Group Roles

- Group Leader
 - Note-Taker
 - Visual Aid Leader
 - Finishing Touch Specialist
 - Questioner
 - Rehearsal Director
- Harrington (2022)

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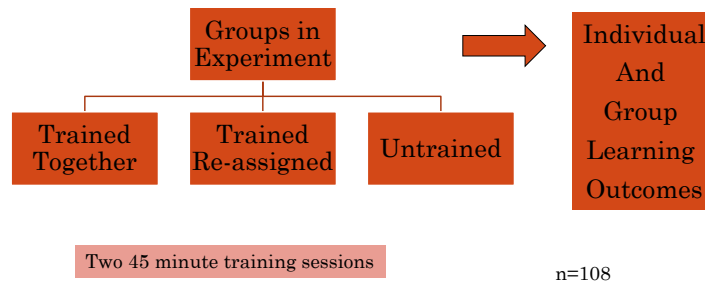
Training students on group process works!

Peterson (2012)

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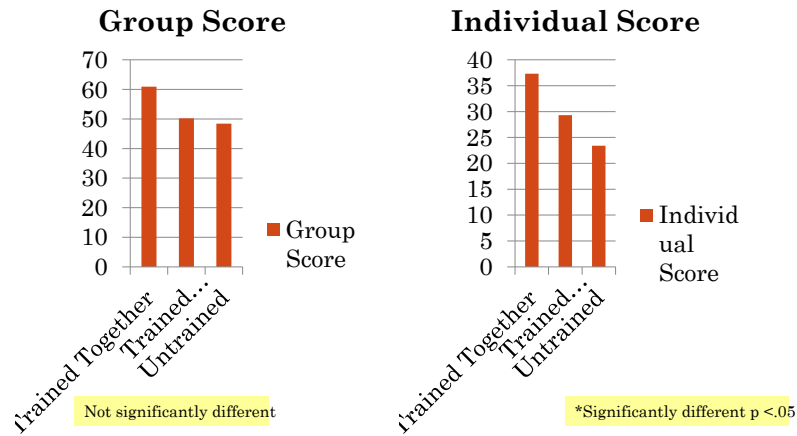
Team Skills Training- Prichard et al. (2006)



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Results...



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Group Work – Research Based Tips



Working **individually** on entire project **BEFORE** working together resulted in better academic performance



Knowing full **CONTENT** first (vs. part of the content) led to better performance

(Sarfo and Ellen, 2011)

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Inter-teaching Boyce & Hinline (2002)



Prep Reading Guide to be completed before class

- 10-12 questions
- 10-15 pages



Clarifying Lecture

- Based on prior record sheets



Pair with another student to review Reading Guide

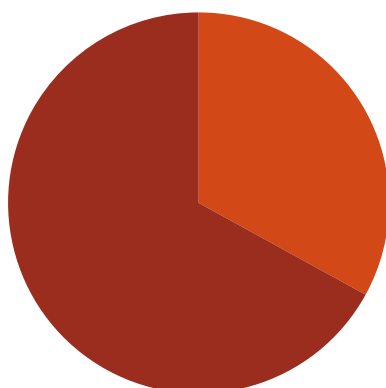
- Professor answers questions
- Record sheet on discussion, identifying difficult concepts

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Inter-teaching

Class Time



- Clarifying Lecture
- Work in Pairs on Guided Reading Sheet

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Structured Problem Solving Approach



- Group members are informed that someone will be randomly chosen to report out on their work
- No one knows who is presenting what until the day of the presentation

(Millis 2002)

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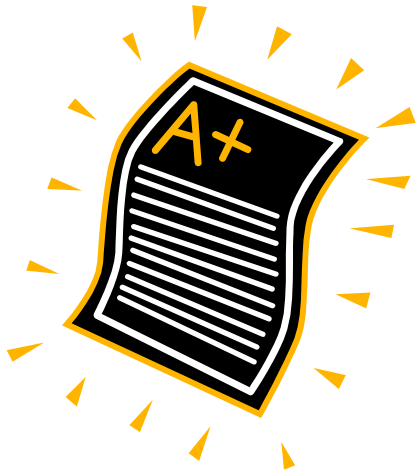
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Grading Issues

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Grading Issues



- High achieving students often receive lower grades
- Low achieving students often receive higher grades on group work

(Almond, 2009)

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Grading Group Work: The Student Perspective



Barfield (2003)

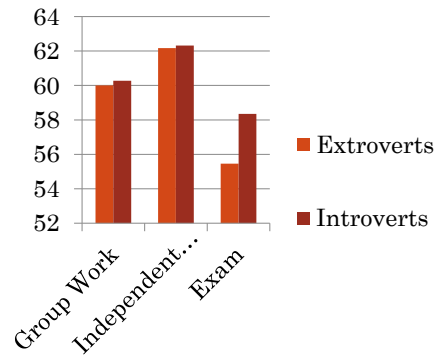
- **Inexperienced group members** more likely to believe everyone should get the **same grade**
- **Part time workers** more likely to believe grading is **fair** as compared to full time workers
- **Older students** were most **dissatisfied** with group grades

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What about Introverts?

Although extraverts like group work more than introverts, they performed equally well on assessments



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Grading Self and Others

- Students tend to give high grades to self and peers

(Breneiser et al., (2012)



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Group Work Accountability Log

Tasks to be completed (Be specific!)	Proposed : By which group member?	Proposed: By what date? How will it be shared with others?	Actual: Completion date- By which group member?

Group Accountability Log

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Individual vs. Group Grade



<http://decker.com/blog/tag/pros-and-cons/>

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Grading Considerations (King & Behnke 2005)

- Not everything needs to be graded
- Avoid “Firing” members
- Group grades can have negative interpersonal impact



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What “take-away” did you get from this workshop?
What might you do differently as a result of participating today?

Applying What You’ve Learned

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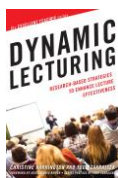
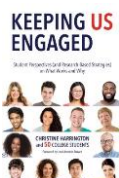
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Brainwriting

1. Write down one “take-away” from this workshop on the index card.
2. Pass the card to your right.
3. Read the card. Add another “take-away”. It can’t be an idea written on the card or one you have already written on a card.
4. Continue passing the card to your right and writing additional “take-aways” until we tell you to stop.
5. Discuss the “take-aways” with your group.

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THANK YOU

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