

Research Experience Wanted: Expanding Opportunities for Diverse Students

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John D. Watt, and Fitsum A. Ayele
University of Nevada, Las Vegas



To reduce feedback,
please mute yourself
in the main room,
unless you want to
talk.

Research Experience is Beneficial

Graduate School

- ▶ Literature reviews
- ▶ Design studies
- ▶ Collect data
- ▶ Analyze data
- ▶ APA style

Post-Baccalaureate Programs

- ▶ Writing
- ▶ Presenting
- ▶ Critical thinking
- ▶ Organizing
- ▶ Using computers
- ▶ Teamwork
- ▶ Leadership
- ▶ Time management
- ▶ Stress management

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Letters of Recommendation

Research Experience is In Short Supply

Resource intensive

- ▶ Training
- ▶ Supervision
- ▶ Computers
- ▶ Equipment
- ▶ Supplies
- ▶ Physical space

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Openings are more likely to go to students from

- ▶ Racial majority groups
- ▶ High SES
- ▶ Stable homes
- ▶ No mental disabilities
- ▶ No physical disabilities

We tripled the size of our lab to provide more research opportunities for diverse students.

Interactive Measurement Group

- Process of re-design
- Research activities
- Addressing problems

Your labs and classes

- Brainstorming and discussion

WELCOME

A lab dedicated to research on emotional intelligence and psychometrics and preparing students for post-baccalaureate education and careers.

Introductions

- ▶ Introduce yourself
 - ▶ Name
 - ▶ Position
 - ▶ Institution
 - ▶ Why you are here

Introductions

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 - ▶ Why you are here
- ▶ 5 minutes

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Introductions

One GoogleDoc for each group

<https://tinyurl.com/wpa-gr1>

<https://tinyurl.com/wpa-gr2>

<https://tinyurl.com/wpa-gr3>

etc.

Instructions

1. Pick a color to write in. Use this color throughout this document.
2. Type your name, position, and institution.

Sample Name, Assistant Professor, UNLV

Another Name, Teaching Assistant, University of Denver

Context

Under what circumstances do you mentor undergraduate researchers?

I co-direct a research lab, along with another faculty member. Between graduate students and about 10 undergraduate research assistants. I teach about emotional learning among toddlers and young children. I also teach and supervise to one or two sections of 35-40 undergraduates each year.

I supervise 3 undergraduate research assistants who are helping me with a project. They are conducting a meta-analysis on the relationship between dominant and subordinate groups.

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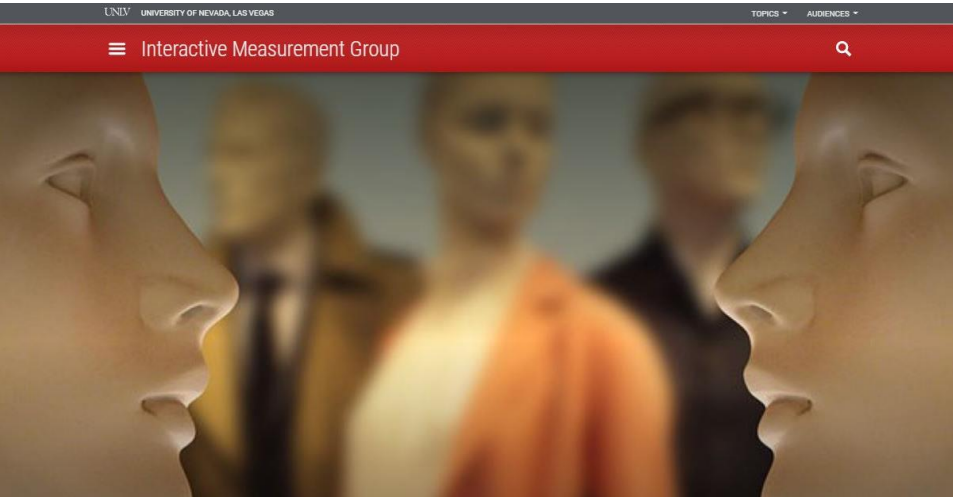
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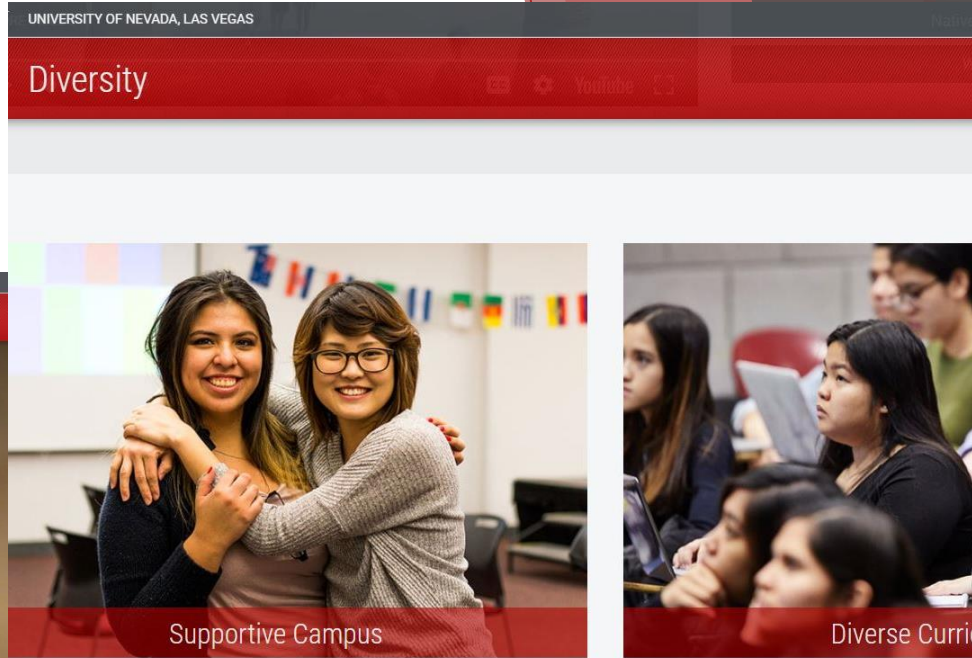
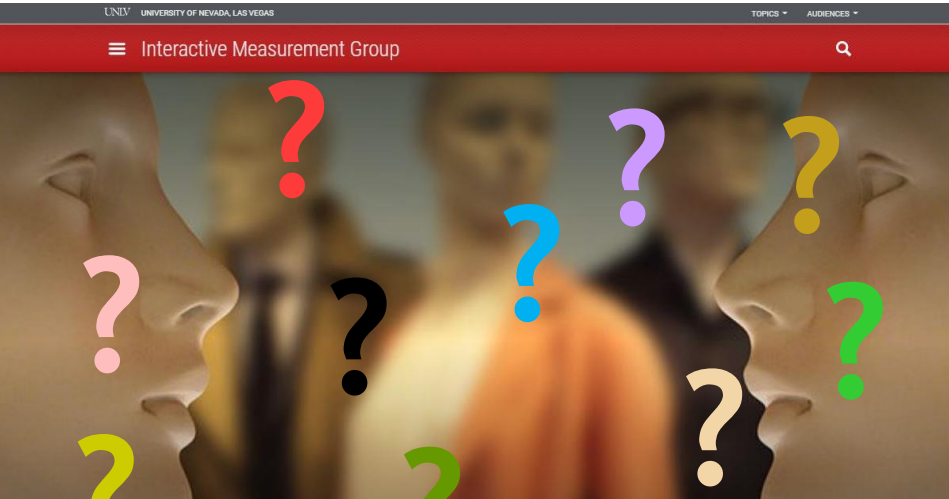
Background



Background



Background



Background

28 RAs



10 RAs



How We Re-designed Our Lab

Goals

- ▶ Substantially increase numbers
- ▶ Provide valuable experiences for new members

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Avoid

- ▶ Over-burdening ourselves
- ▶ Reducing quality for existing members

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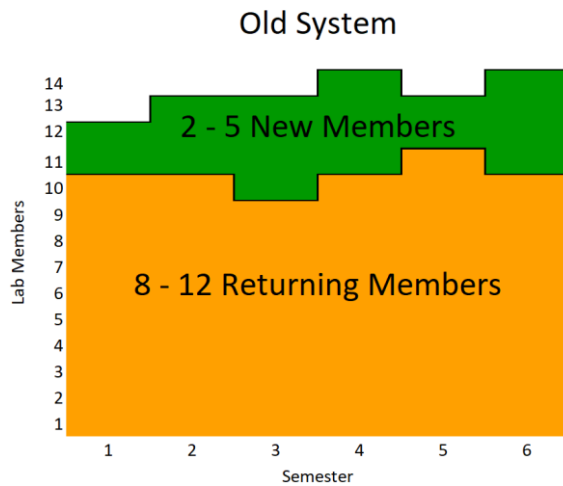
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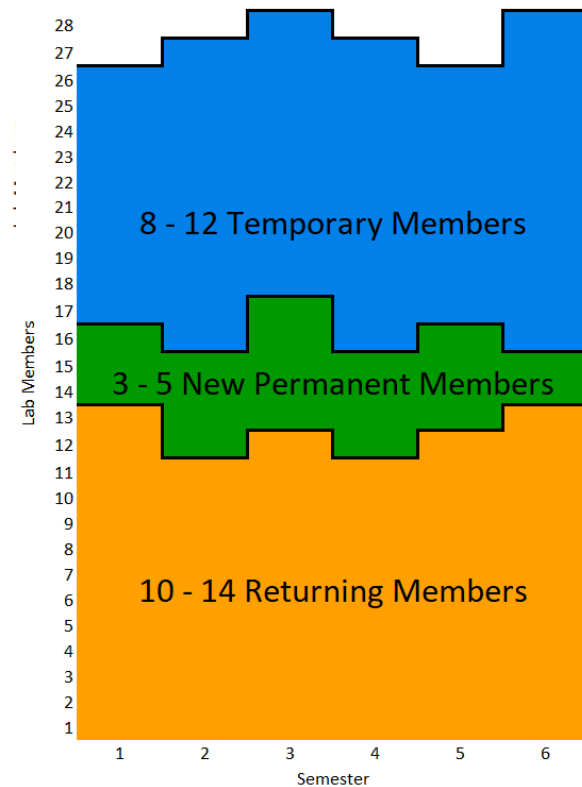
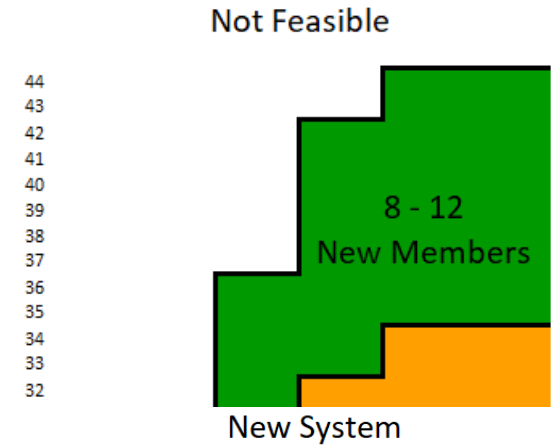
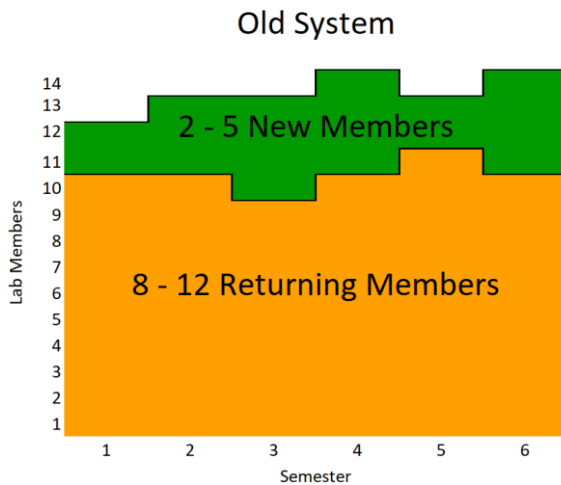
Solutions

- ▶ Contained experience
- ▶ Use existing resources
- ▶ Address possible problems

Contained Experience



Contained Experience



Use Existing Activities

Research

Reading
Qualtrics
Mturk

Writing

Conference poster
Literature review
Newsletter articles
Book on writing
Peer feedback
Presentations

Computers

Email
Word
Excel
PowerPoint
Publisher

Statistics

SPSS
Jamovi
DataCamp R
Advanced statistics

Graduate School Prep

Curriculum vitae
Statement of purpose
Letters of recommendation
Pick graduate school
GRE, MCAT, and LSAT
Interviews
Honors, McNair,
AANAPISI, Psi Chi

Life Skills

Mindfulness meditation
Book on productivity

Criteria

Deliverable

Prepared instructions
Automatic feedback

Manageable

Preparing materials
Organizing meetings
Answering questions

Safe

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Reject

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Modify

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Spring 2021

Summer 2021

Use Existing Activities

Programs and Organizations

Honors College

Psi Chi / Psychology Club

McNair Scholars

McNair Summer Research Program

Asian American and Native American Pacific

Islander-Serving Institutions (AANAPISI)

UNLV Grad Rebel Advantage

UNLV Undergraduate Outreach Mentoring

UNLV Library Workshops

UNLV Library Research Award

Online Resources

DataCamp (R, Python)

Coursera

Khan Academy

Online Jamovi textbook

Palouse Mindfulness Meditation training

Books with Exercises and Answers

Style: Toward Clarity and Grace by

Williams and Colomb

Keys to Effective Writing by Wilbers

Elements of Style by Strunk and White

Discovering Statistics Using SPSS by Field

Platforms

Canvas

Qualtrics

R statistical package

UNLV Rebel Apps to access SPSS

Gmail, Word, Excel, PowerPoint, Publisher

People

Lab manager

Poster supervisor

Senior lab members

New lab members

Colleagues

Use Existing Activities

Brainstorm

- ▶ What research activities do undergraduates do in your lab or classes?

[3 minutes: Write in Word or on paper]

Use Existing Activities

Brainstorm

- ▶ What research activities do undergraduates do in your lab or classes?

[3 minutes: **Write in Word or on paper**]

Evaluation

- ▶ Pick one
- ▶ Reject one
- ▶ Modify one

[3 minutes: **Write in your GoogleDoc**]

Use Existing Activities

Brainstorm

- ▶ What research activities do undergraduates do in your lab or classes?

[3 minutes: **Write in Word or on paper**]

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- ▶ Modify one

[3 minutes: **Write in your GoogleDoc**]

Breakout Group Discussion

- ▶ One idea: Most excited? Most want help?

[10 minutes: **Update your GoogleDoc**]

Use Existing Activities

What research activities do undergraduates do in your lab or classes?

Sharing Ideas

- ▶ Pick one
- ▶ Reject one
- ▶ Modify one

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Address Possible Problems



Little
sense of
community

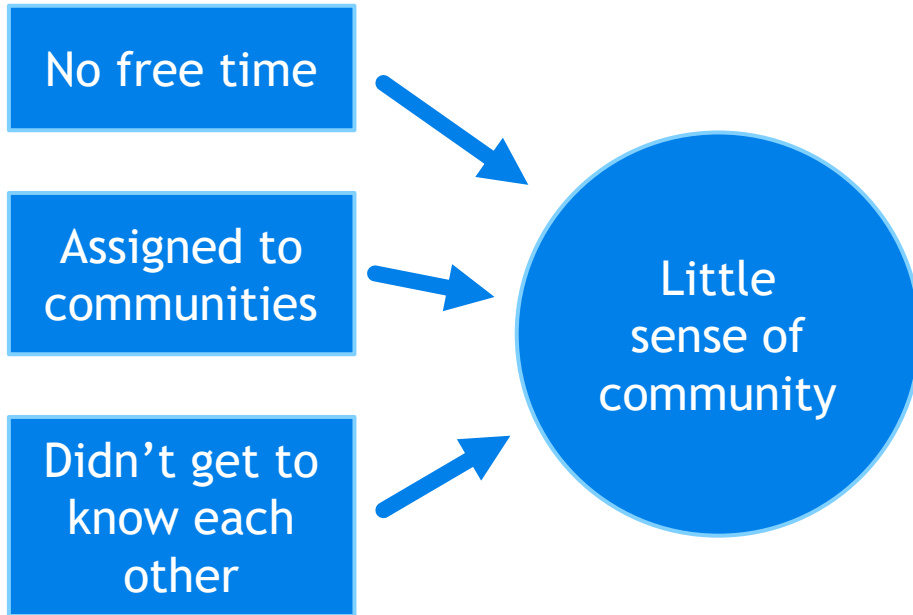
Address Possible Problems

No free time



Little
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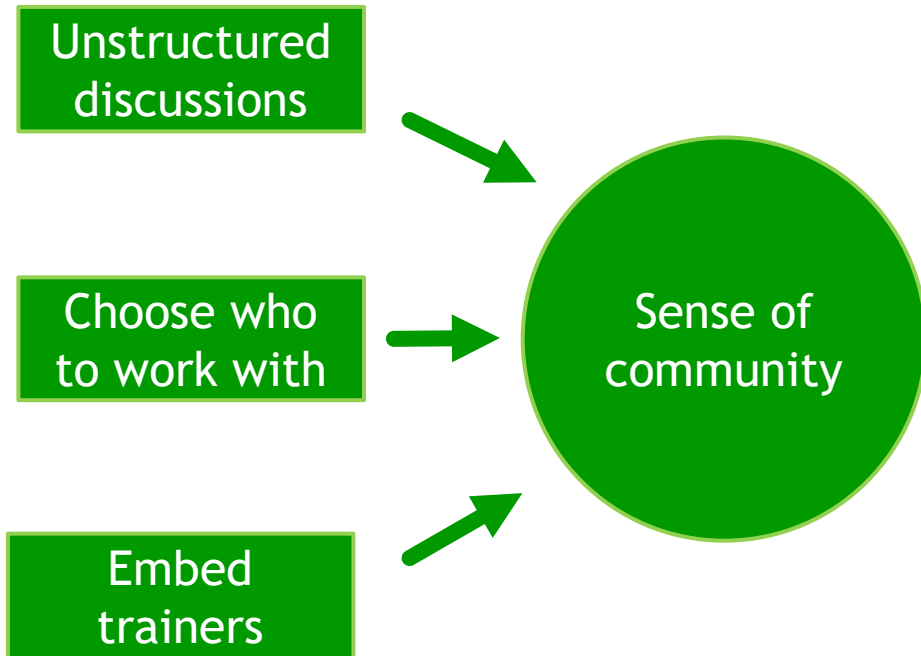
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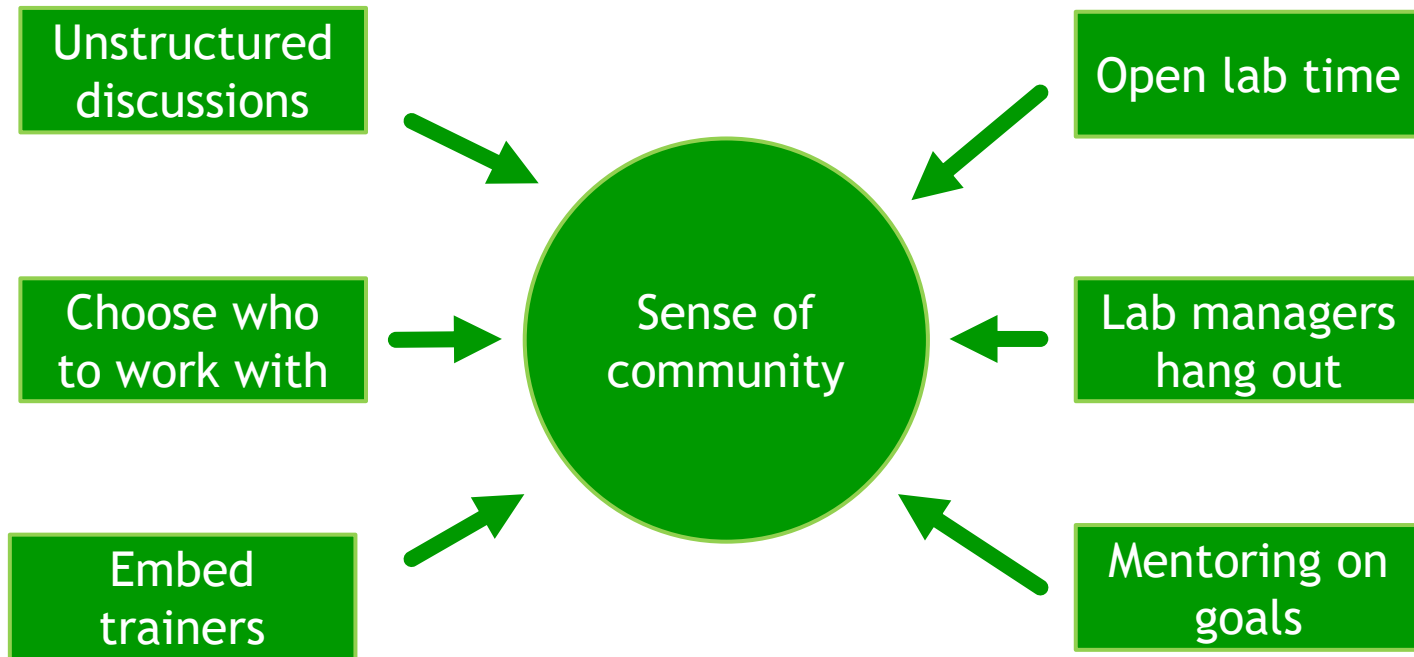
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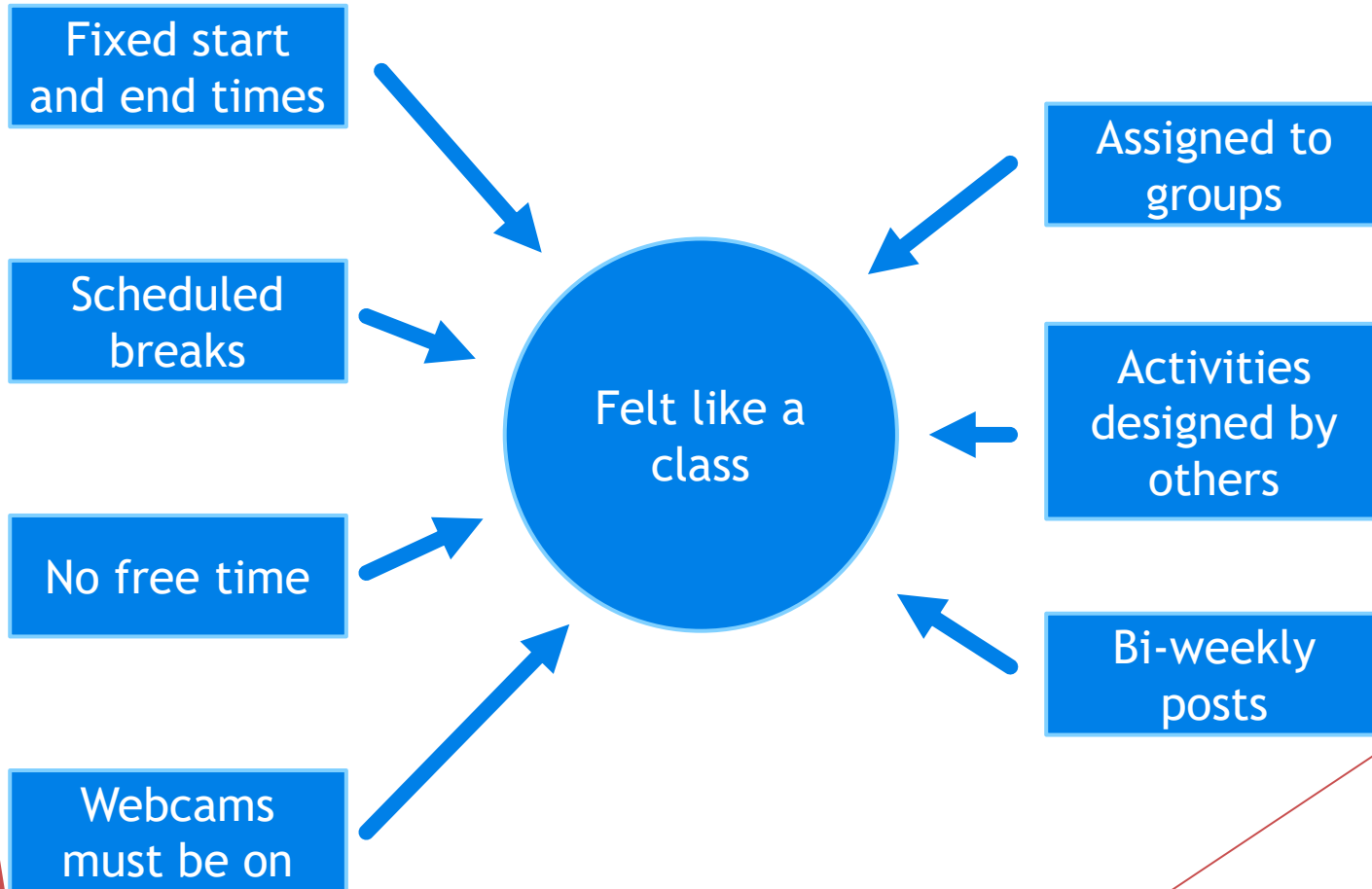
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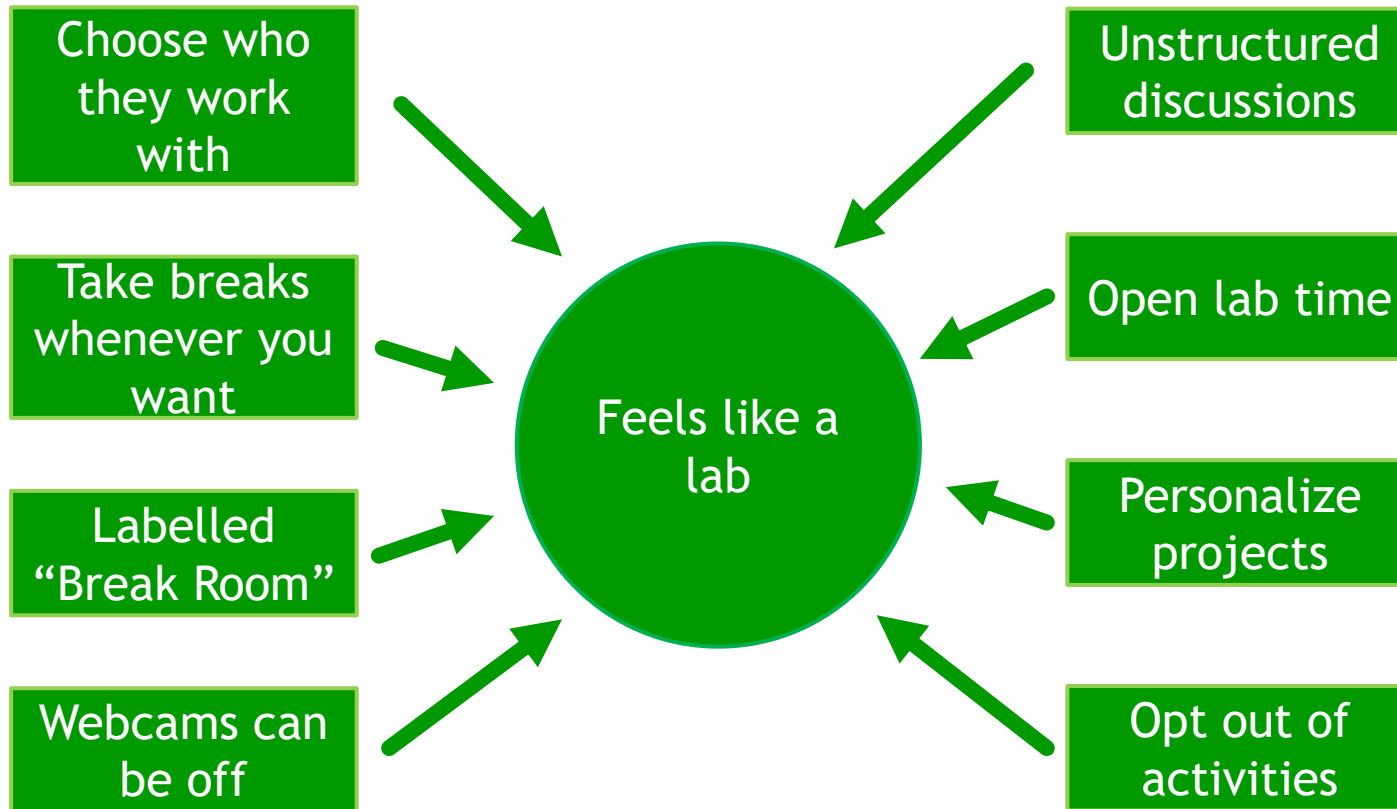
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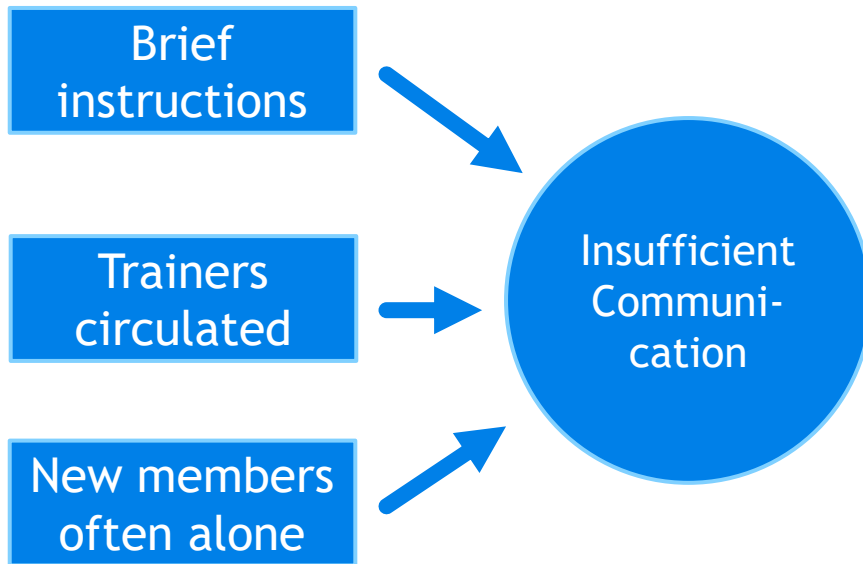


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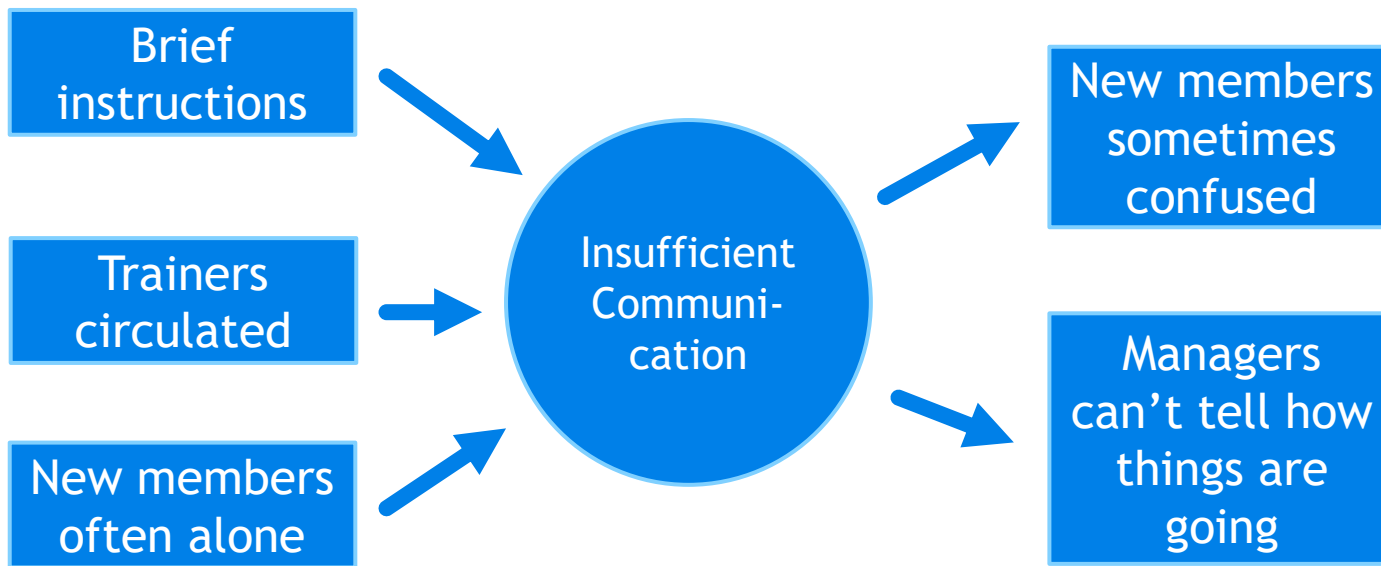
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Virtual Meetings :: Breakout Rooms



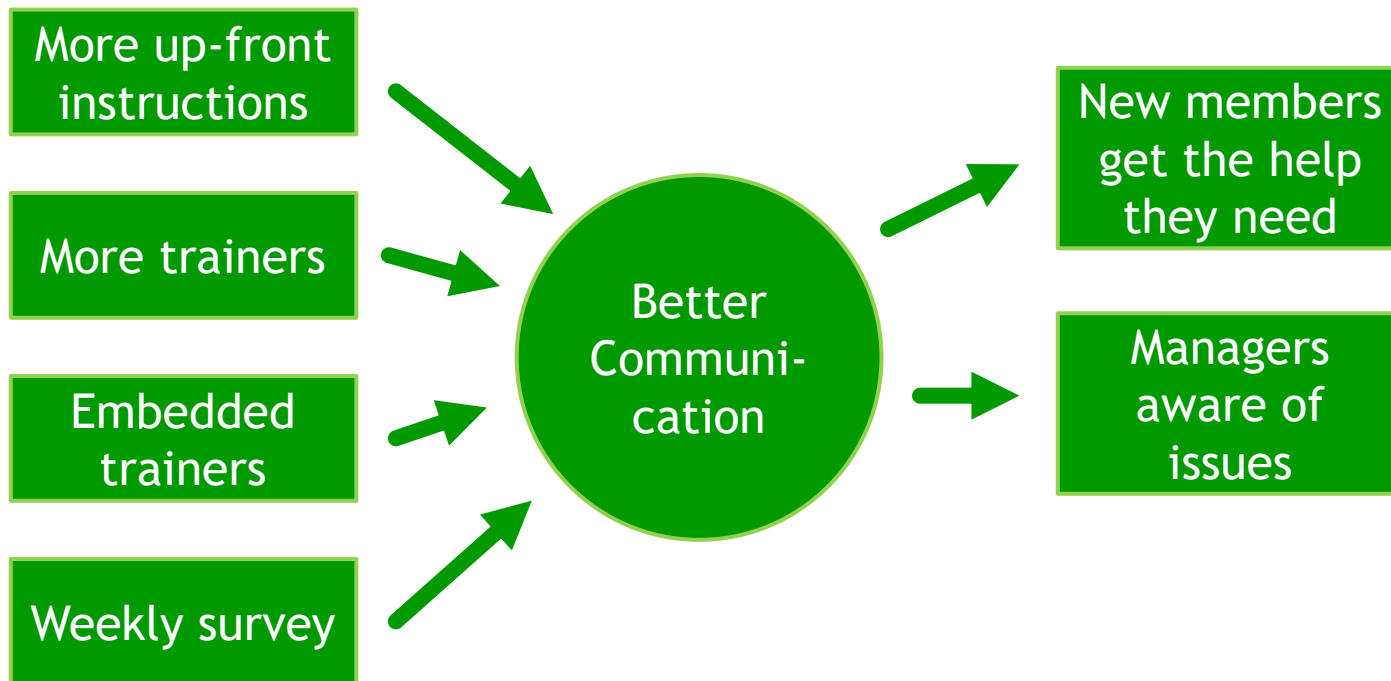
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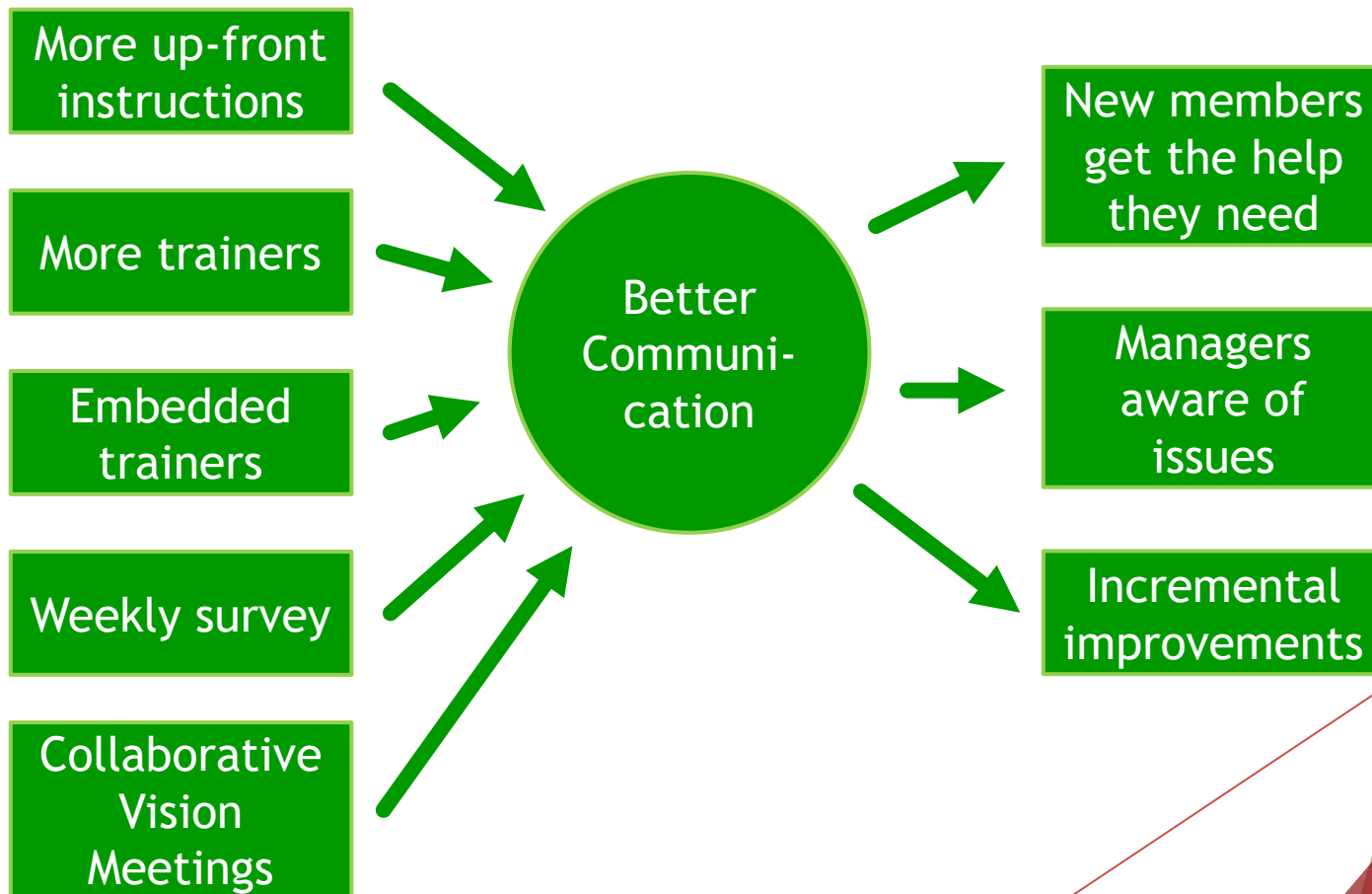
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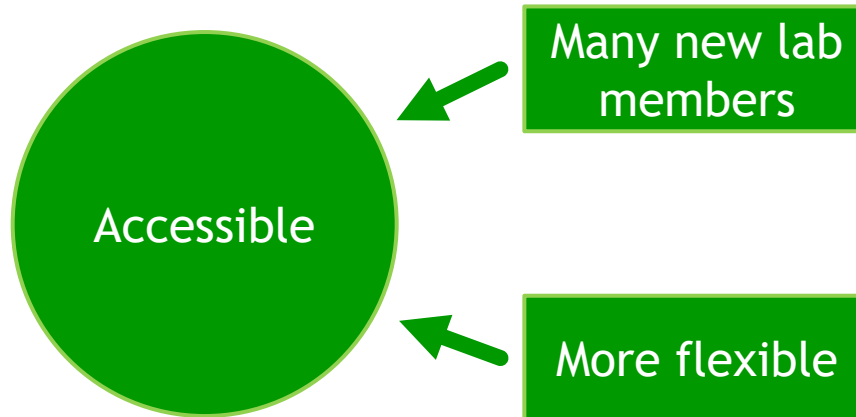
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Virtual Meetings :: Breakout Rooms



Address Possible Problems

Virtual Meetings :: Breakout Rooms



Address Possible Problems

In advance

- ▶ Share ideas
- ▶ Address concerns

As you go

- ▶ Solicit feedback
- ▶ Modify activities

It is possible to provide high quality research experience to many more undergraduates.
We plan to continue doing so.

Address Possible Problems

Brainstorm

- ▶ If you were to supervise many more undergraduate researchers, what problems do you anticipate?

[2 minutes: **Write in Word or on paper**]

Problem-solving

- ▶ Select ONE of those problems.
- ▶ How could you address it?

[2 minutes: **Write in your GoogleDoc**]

Address Possible Problems

Brainstorm

- ▶ If you were to supervise many more undergraduate researchers, what problems do you anticipate?

[2 minutes: [Write in Word or on paper](#)]

Problem-solving

- ▶ Select ONE of those problems.
- ▶ How could you address it?

[2 minutes: [Write in your GoogleDoc](#)]

Breakout Group Discussion

[15 minutes: [Update your GoogleDoc](#)]

Address Possible Problems

Sharing ideas

- ▶ If you were to supervise many more undergraduate researchers, what is one problem you anticipate?
- ▶ How could you address it?

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Moving Forward

- ▶ These slides are available from kim.barchard@unlv.edu and <https://tinyurl.com/WPA-Barchard>
- ▶ Download the ideas from your group

Thank you

The slide features a white background with abstract, overlapping geometric shapes in shades of red and grey on the right side. The shapes include triangles and polygons, some of which are semi-transparent, creating a layered effect. The text 'Thank you' is centered in a bold, red, sans-serif font.

Chat Content

INTRODUCTIONS: Please share your name, your position, your institution, and why you are here today.

Once you are inside your breakout room, please note WHICH room you are in. You'll need this information later.

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<https://tinyurl.com/wpa-gr14>

<https://tinyurl.com/wpa-gr15>

Chat Content

ACTIVITIES: Share one of the activities you considered. Consider sharing the activity about which you are most excited or the activity for which you would most like help.

POSSIBLE PROBLEMS: Focus on one possible problem with supervising more undergraduate researchers. Describe that problem and how you could address it.