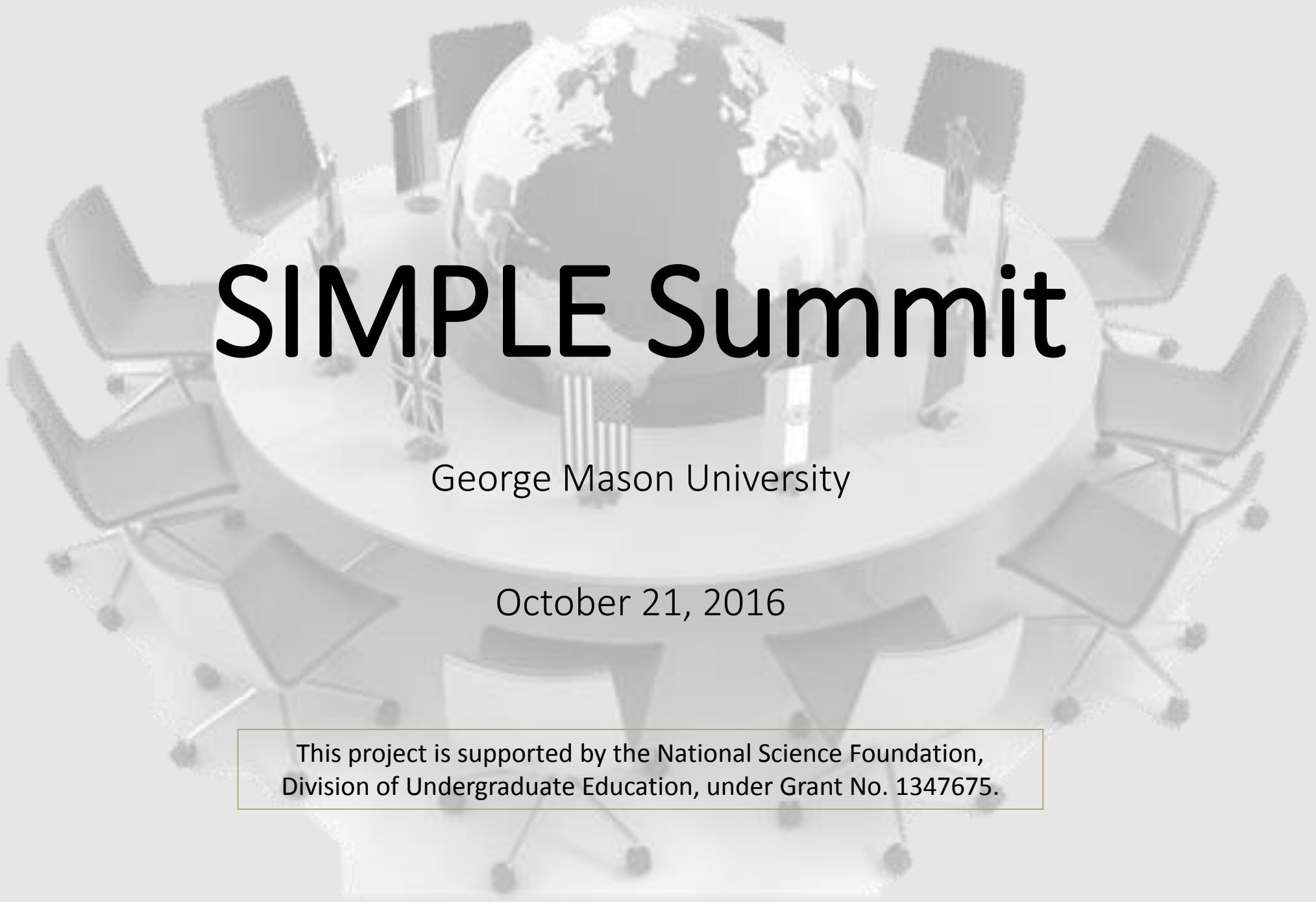


SIMPLE Summit

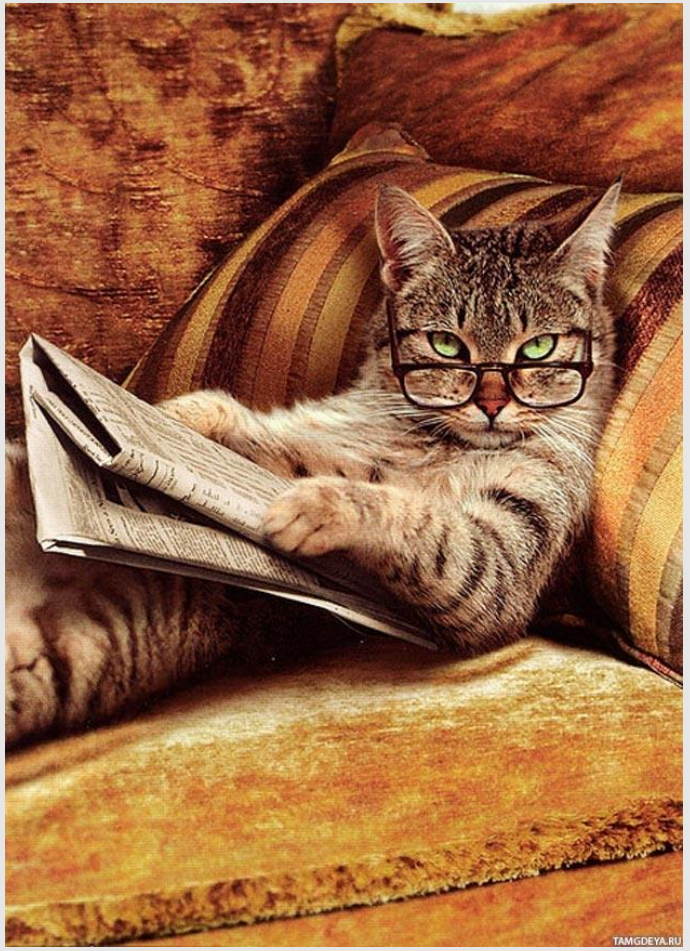
George Mason University

October 21, 2016

This project is supported by the National Science Foundation,
Division of Undergraduate Education, under Grant No. 1347675.

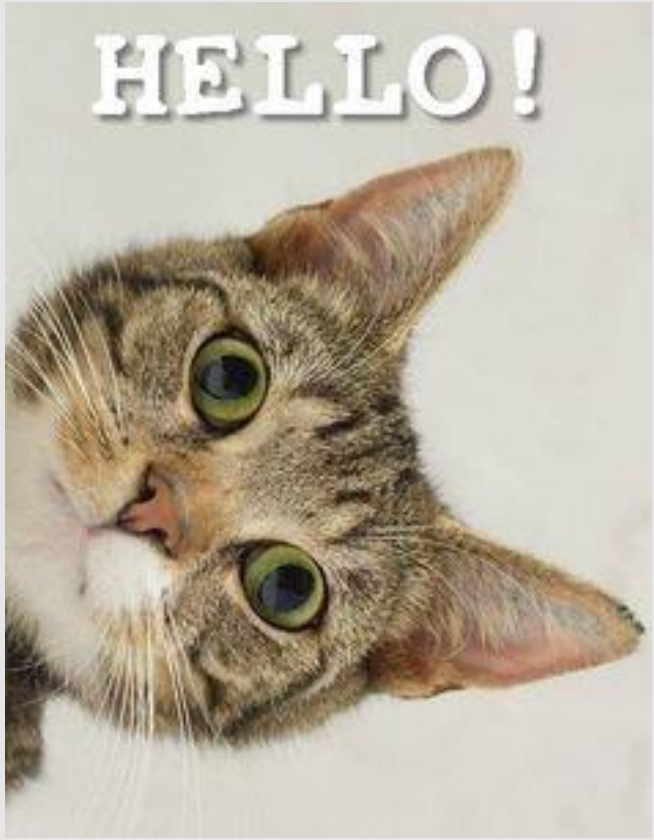
Summit Agenda

- Introduction of the project
  - Teaching Development groups
  - SIMPLE framework for faculty development
  - Research agenda and preliminary results
  - Teaching Inquiry Group
- Presentation from Dr. Vicky Ikonomidou about her teaching innovations and educational research
- Table discussions facilitated by group representatives
- Share outs and closing



Who are we?

- Jill Nelson – Electrical and Computer Engineering
- Anastasia Samaras – Graduate School of Education
- Margret Hjalmarson – Graduate School of Education
- Cody Edwards – Office of the Provost / Biology
- Lori Bland – Graduate School of Education
- Dasha Gerasimova, Graduate Research Assistant



What IS this project??

Supporting instructors in teaching innovation through:

Teaching Development Groups

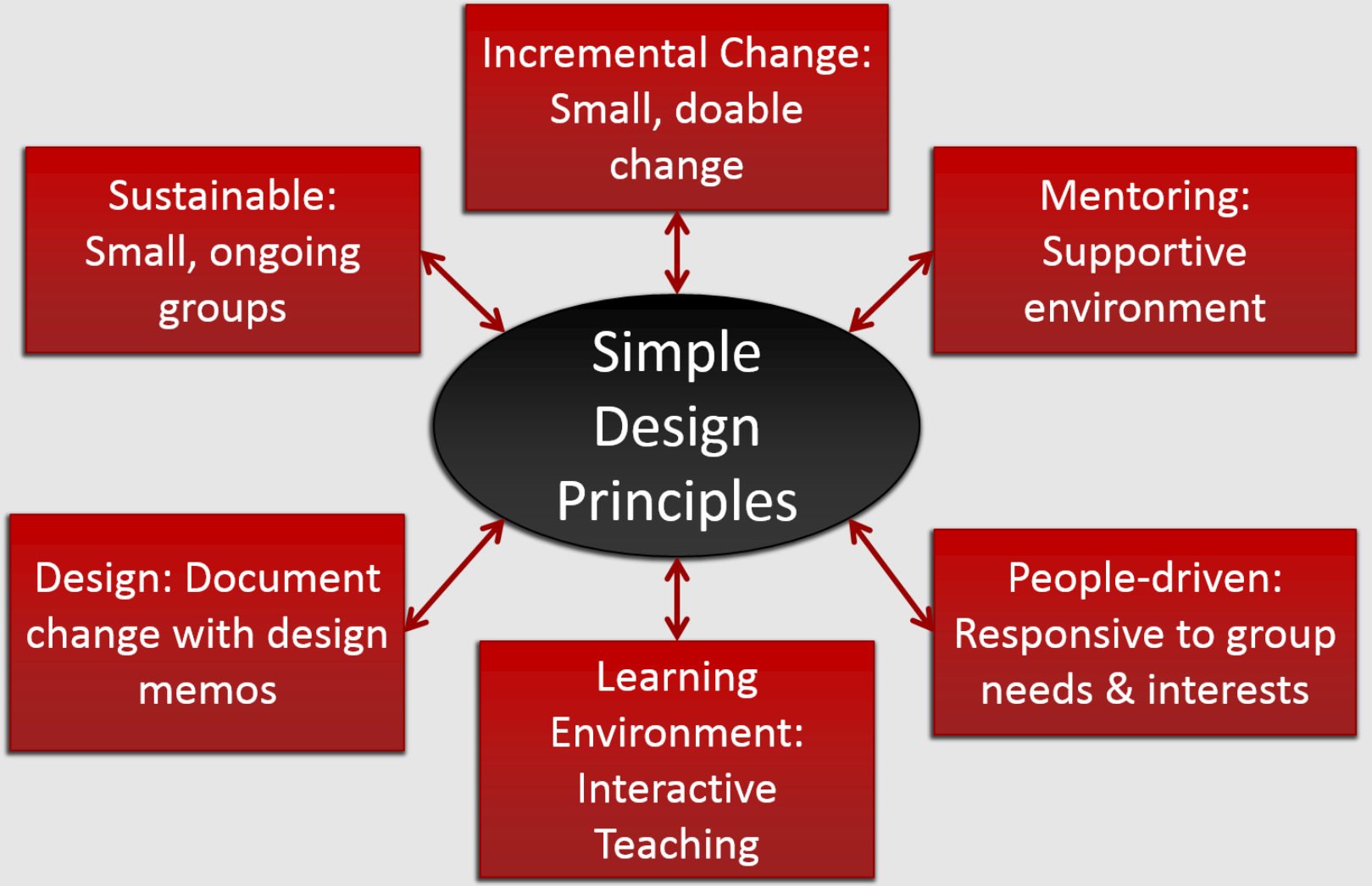
Teaching Inquiry Group

Funded under the NSF WIDER (Widening Implementation & Demonstration of Evidence-Based Reforms) Program

Teaching Development Groups

- Designed for the faculty interested in
  - Learning more about interactive teaching
  - Discussing teaching strategies with each other
  - Being supported in their teaching innovations
- How it works
  - Regular meetings within the department
  - Implementing new teaching strategies or improving old ones
  - Documenting the experience by creating a design memo

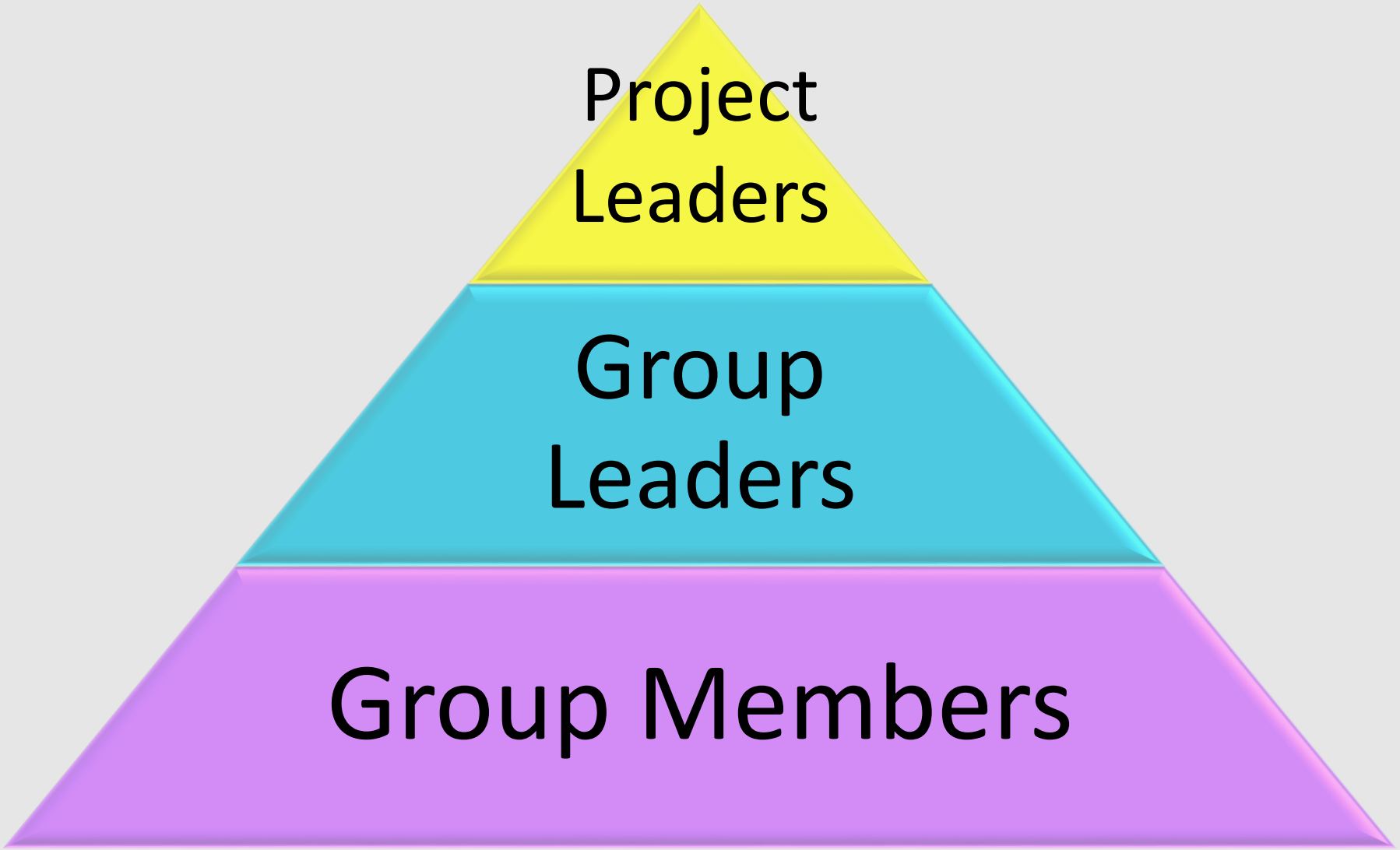
The SIMPLE Design Framework for Faculty Development



Where are Teaching Development Groups organized?

Department	Group Leader
Biology and Environmental Science	Reid Schwebach and Cody Edwards
Computer Science	Chris Kauffman
Civil, Environmental & Infrastructure Engineering	Laura Kosoglu
Physics and Astronomy	Rob Cressman
Mathematical Sciences	Bob Sachs
Atmospheric, Oceanic, and Earth Sciences	Julia Nord
Global and Community Health	Laura Poms

What is the project organization structure?



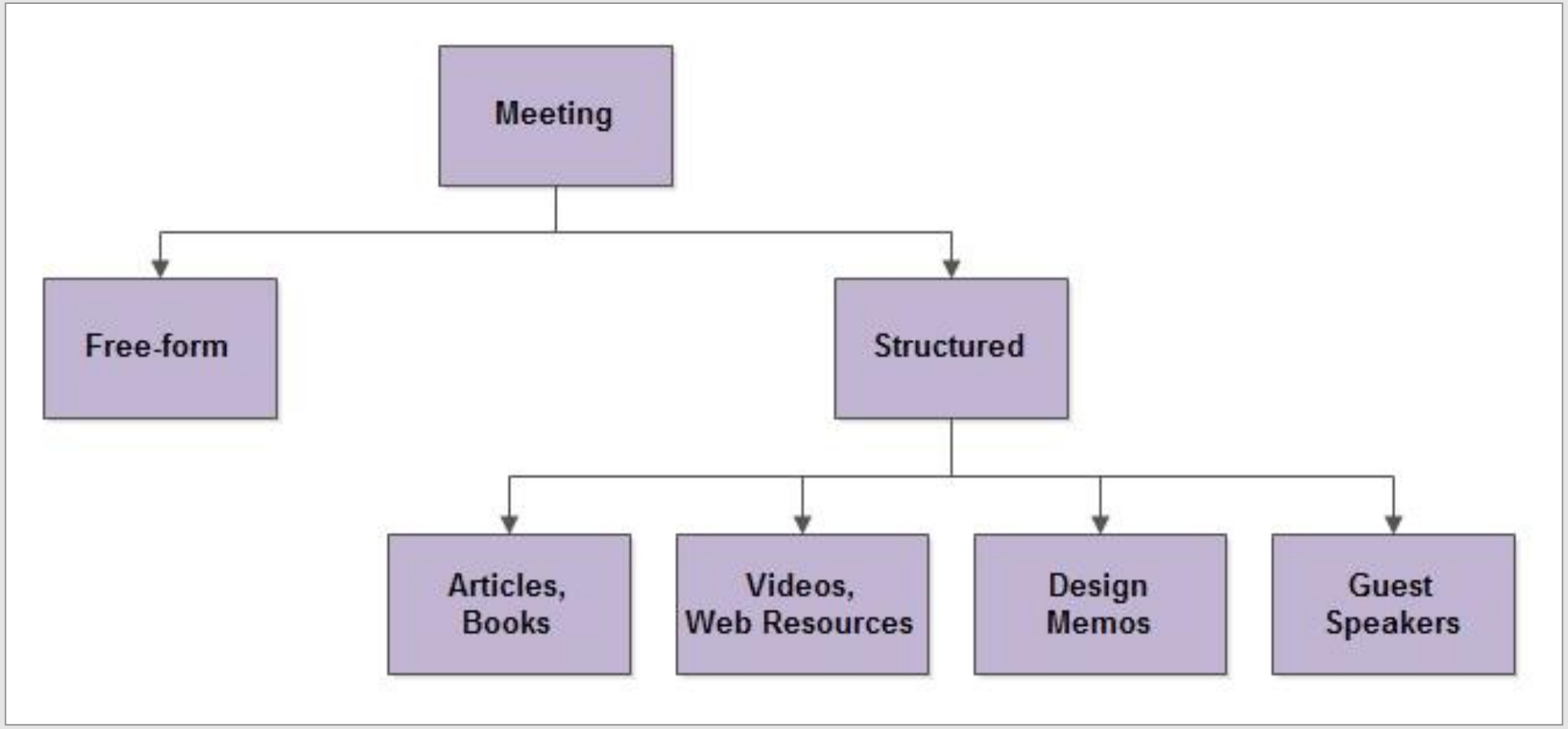
What is on the Project Research Agenda?

- Teaching Development Group evolution:
  - What do group meetings look like?
  - What do the groups focus on?
- Experiences of group members:
  - What are the benefits of participation in the group?
  - How does participation in the group influence members' teaching?
  - How do group members perceive their experience with the project?

Preliminary Results: Participation Benefits

- Learning more about interactive teaching and new things to try in the classroom
- Implementing new strategies and improving old ones
- Peer support in teaching improvement and affirmation of teaching direction
- Opportunity to share teaching problems for peer feedback and advice
- Networking opportunities

Preliminary Results: Meeting Structures



The Teaching Inquiry Group (TIG)

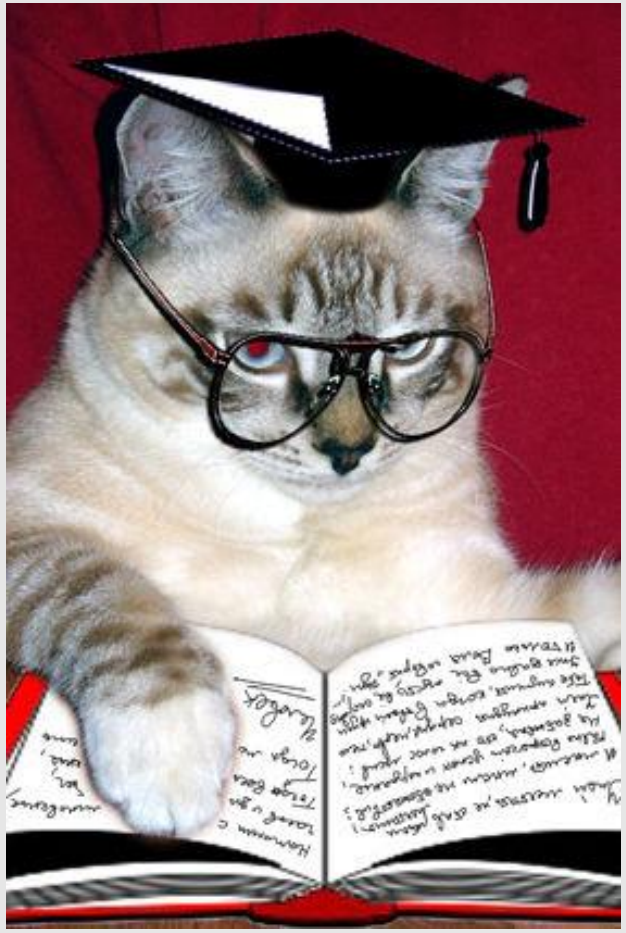
Designed for faculty interested in

- Scholarship of teaching
- Self-study of teaching practice
- Publishing in educational journals

Leader: Dr. Anastasia Samaras, an experienced facilitator of the self-study groups at Mason

How it works

- Each member pursues a research project on the aspect of their teaching that they are interested in investigating
- Monthly meetings to provide faculty with guidance and peer support
- Individual need-based consulting



Let us introduce Dr. Vicky Ikonomidou!

- Associate Professor in Bioengineering
- NSF-funded research:

Research Initiation Grant: Student-directed differentiated learning in college-level engineering education

- A member of the Teaching Inquiry Group

Today Vicky will share her experience with teaching innovations and self-study research!

What's Next?
Table Discussions!

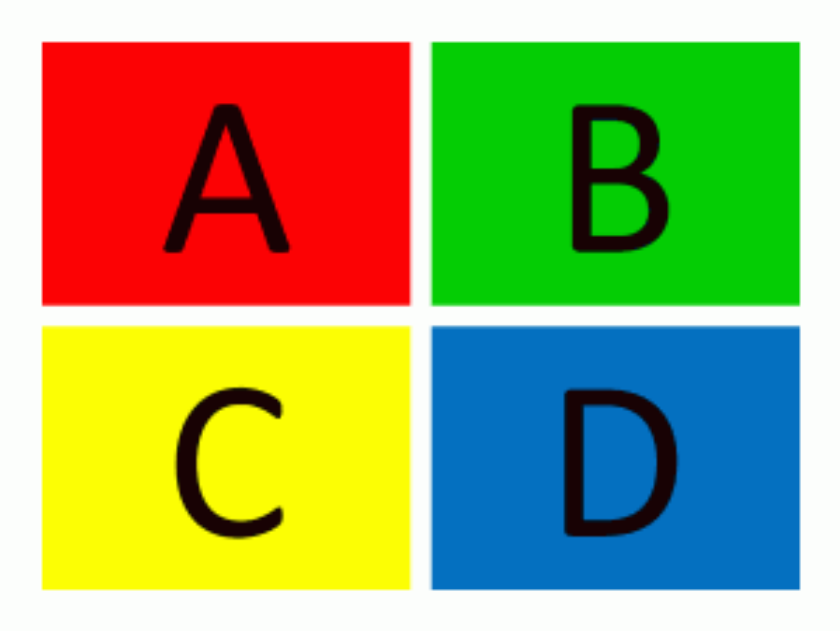
Facilitators will introduce their topics.

We will then ask you to move to the table with the facilitator whose topic is of interest to you.

And then… participate in the discussion!

Becky Ericson: Looking at the classroom from different points of view

How do you know what students think and learn from your teaching innovations?



What motivates you to try new things in the classroom? What is discouraging?

Chris Kauffman: Inclusive vs. Discriminative Course Attitudes

Context

- I teach CS 211, 2nd programming class in CS major sequence, and CS 310, 3rd programming class
- Taken by some other majors (CPE, BENGR, SEOR)
- Often accused of being a "weed-out" course
- Don't want my course to be fluff but also don't want to scare folks away
- I struggle to balance being inclusive vs discriminative
- All instructors struggle with this but STEM areas have a tougher time as we often have more objective criteria on which to judge student work

Include vs Discriminate

Inclusive

- Everyone can learn to do this
- Apply the right amount of effort and you will pass
- There are many possible answers, just try

Discriminative

- Learn to do this or you won't pass
- This is tough stuff, not everyone can get it
- Some answers are *much* better than others

1. Too inclusive leads to grade inflation, overconfidence, inept graduates
2. Too discriminative leads to resentment, elitism, lack of community
3. Larger classes exacerbate this problem by widening the high and low ends of the talent distribution
4. How much should I slow down so that the slowest student in the class can have a chance at "getting it"?
5. How hard should I make things to improve the average quality of students in our program?

Bob Sachs: Multiple Ways to Support Student Centered Learning

Join a Table!

What are your takeaways and insights from today?

Project Website: http://simple.onmason.com/

- More information about the project
- Teaching resources (articles, videos, books, other web resources)
- Design memos
- SIMPLE posters
- Project Publications

Questions?

- Now: Ask away!
- Later:
  - Jill Nelson – jnelson@gmu.edu
  - Anastasia Samaras – asamaras@gmu.edu
  - Margret Hjalmarson – mhjalmar@gmu.edu
  - Cody Edwards – cedward7@gmu.edu
  - Lori Bland – lbland2@gmu.edu
  - Dasha Gerasimova – dgerasim@gmu.edu