

AFFINITY RESEARCH GROUPS

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INTRODUCTIONS



Introduce yourself to as many people as possible. Find out something interesting about each person that you meet.

EXPECTED OUTCOMES

- Participants will be able to:
 - Describe the philosophy and essential components of ARG
 - Incorporate ARG practices into their research groups
 - Have a plan for running research groups

Paper Review

BIGGERS' STATIONS

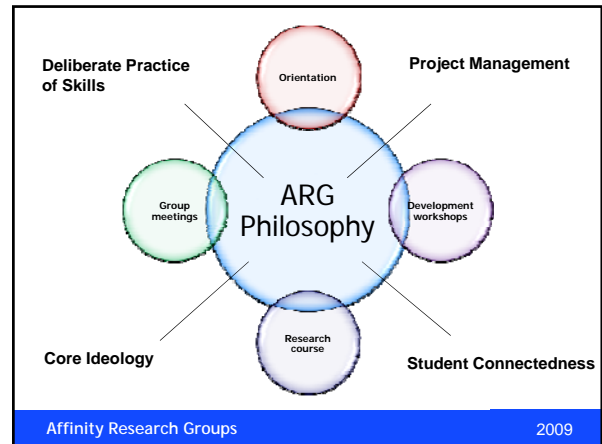
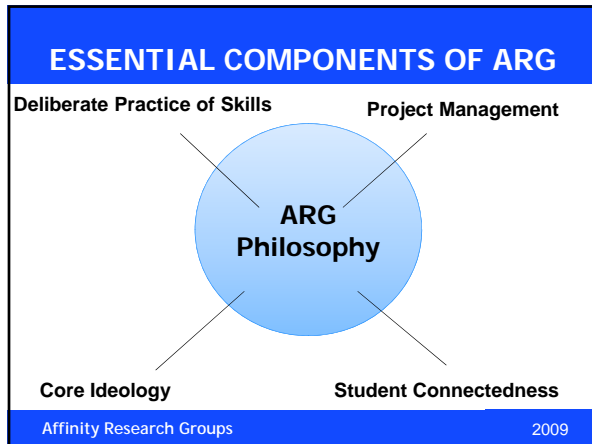
- Station 1 (Red): Philosophy and Goals
- Station 2 (Blue): Project Management
- Station 3 (Green): Skills
- Station 4 (Yellow): Theoretical Framework

AFFINITY RESEARCH GROUP MODEL



- Integral model
- Cooperative group interaction
- Deliberate and intentional development of skills
- Support structure
- Best practices

Expand participation by recruiting students who may not normally be involved in research



ORIENTATION

Purpose:

- Facilitate assimilation of new students
- Increase ownership of model

Benefits:

- Understand basic group/research skills
- Reevaluate model

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GROUP MEETINGS

Refine weekly/monthly/semester goals, solve problems, and discuss research

<p>Description</p> <ul style="list-style-type: none"> • Structured meetings • Status and problem reporting • Discussion/presentations • Teach concepts • Constructive criticism 	<p>Benefits</p> <ul style="list-style-type: none"> • Structure accountability • Practice group and communication skills • Develop domain expertise • Evaluate goals, tasks, and methodology
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ARG ACTIVITY: SETTING GOALS AND OBJECTIVES WORKSHOP

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RESEARCH PROCESS

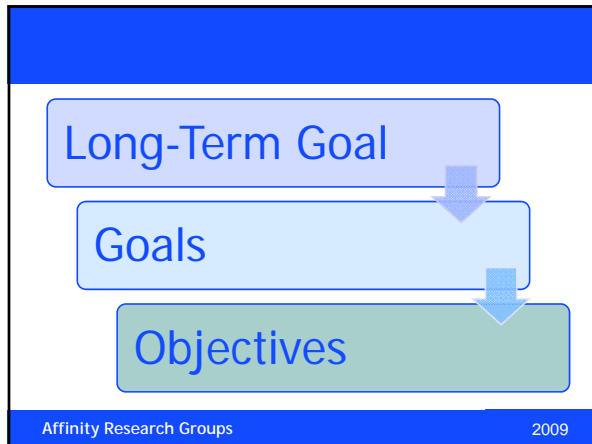
- 1

- Conduct background research
 - Formulate research questions
- 2

- Develop hypothesis
 - Define goals and objectives
- 3

- Develop a research (education) plan
 - Seek feedback

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GOALS

Broad purposes around which all project activities and resources will be organized.

- State what you hope to accomplish, but usually are not measurable.
- Create the setting for what you are proposing.
- Identify a gap in knowledge.
- Describe what you want to achieve and the outcome.
- Should be important and the outcome should impact your long-range research plan.

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GOAL EXAMPLES

- Review the goals in the handout.
- What are your observations?
- Time limit: 10 minutes

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Example Project Goals


1. The long-term **goal** of ICE is to develop a coordinated circumpolar approach to understand climate interactions in the Southern Ocean, the implications for ecosystem dynamics, the impacts on biogeochemical cycles and the development of management procedures for the sustainable exploitation of living resources.



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Example Project Goals


3. A **goal** of Project CAE is to increase the representation of Hispanic girls and women in science, mathematics, engineering, and technology (STEM) programs of study.



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Example Project Goals

8. Research Question: What is the potential for survival and adaptation beyond the home planet?
 - Goal 1:** Identify natural processes that may spread life from one planet to another.
 - Goal 2:** Define the minimal ecosystem that is required for organisms to survive and then adapt beyond Earth.
 - Goal 3:** Establish ethical principles for seeding life elsewhere in the solar system.



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THINK

- What are your long-term goals?
- What is your project goal(s)?
- Time: 5 minutes

QUESTIONS: SHARE

- Share your goal(s) with the group.
- Discussion:
What gap in knowledge does the goal address?
How does the goal relate to achieving the long-range research goal?
- Time: 15 minutes (5 minutes per member)

GOALS AND OBJECTIVES PACKET

- Connect the elements of the activity to the elements of cooperative teams:
 - Build positive interdependence
 - Foster promotive interdependence
 - Ensure individual accountability
 - Teach social and professional skills
 - Engage members in group processing
- Where do the elements appear?
- How can the activity be refined to include the elements?

Time: 20 minutes

REPORT OUT

ARG IN PRACTICE

ARG IN PRACTICE: POSTER CRITIQUE WORKSHOP

Participants:

- ~10 faculty—Interdisciplinary
- ~30 students—UG, Master's and Doctoral

Objectives:

- For faculty—learn how to run a poster critique session
- For students—learn how to prepare a good poster, develop oral and written communication skills for presenting project deliverables

The audio clip:

- Group of 4 students, multiple disciplines and levels
- Task is to develop criteria for critiquing a poster



ARG IN PRACTICE: POSTER CRITIQUE WORKSHOP

Questions for Discussion:

1. What are these students learning about poster critique in this conversation? Please identify specific student turns by line number.
2. Do you see evidence of cooperative skills in this conversation? If so, please identify the skill(s) by student turn and line number.

PROCESSING

- What do you perceive as the differences between an ARG and a traditional research group?
- Which ARG-like practices do you already use?
- Which ARG practices may be challenging to implement?

PLANNING YOUR ARG

TAKING THE NEXT STEP

- Create a plan for the upcoming year by completing the *Affinity Research Group Planning Document*.
- Ask questions.
- Use your handbook.
- Talk to your neighbors.

Our goal is to help you be successful in implementing ARG.

CONTACT INFORMATION

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