Affinity Research Group (ARG) Model Resources

Overview

A major feature of the ARG model is the structured activities that develop the group members' technical, communication, research, and cooperative group skills. The students develop research skills throughout the semester by working with the faculty mentor and through their pairing with more experienced student researchers. Students begin skills development in their area of interest by reading extensively, participating in regular group project discussions, and completing assigned tasks. Faculty mentors can turn to university services, such as the offices of human resources and development, deans of students, and centers for teaching to schedule a workshop on topics such as leadership or time management, which could be held during a large-group meeting. As the previous chapter describes, large-group meetings are a way to recognize student achievements, to help students develop a broader research knowledge base, and to practice and enhance their technical, team, and communication skills. Students develop research, technical, professional, and team skills throughout the semester by working with the faculty mentor and experienced student researchers, as well as through assigned tasks. The ARG model relies on structured activities that deliberately address student development in one or more of these areas:

- · confidence,
- team skills,
- technical skills and domain expertise,
- written and oral communication skills,
- higher-level thinking skills, and
- · research skills.

Structured activities can include creating a research poster; critiquing the work of others; becoming an expert in using a particular method, approach, or tool; discussing technical papers; extending previous work; learning from others; managing the bibliographic database; working in tandem; and writing a technical report. Below you will find resources to help your mentees develop these skills.

ARG Certification

The Affinity Research Groups: Creating and Maintaining Effective Research Groups Course is an 8-week course that offers a blend of online modules, interactive discussions, assignments, and opportunities for self-reflection tailored to enhance the mentor's engagement with research groups. Delivered in an asynchronous, modular format, attendees have the flexibility to navigate the course at their own pace over the course of the 8 weeks. Faculty who complete the course will receive a CAHSI ARG Certificate of Completion. The next ARG certification process is expected to begin in late January/early February.

The primary aim of the course is to equip mentors with the tools to intentionally develop mentees' technical, professional, social, communication, and team skills. At the core of the approach is the Affinity Research Group Model, designed to support the creation and maintenance of dynamic and inclusive research groups. By joining this course, mentors gain valuable insights and practical strategies to excel as a research mentor.

The course objectives are to:

- Gain a deep understanding of the fundamental aspects of the Affinity Research Group Model.
- Explore how ARG practices differ from conventional research group structures.
- Learn how to implement ARG principles within your own research group or academic setting.

The lessons in the course focus on students' skills development in areas such as:

- Goals and Objectives
- Elevator Speech
- Constructive Critique
- Probing Questions
- Reflection
- Writing an Abstract
- Elements of a Research Poster
- Reading a Research Poster

Publications

Affinity Research Groups in Practice

The Affinity Research Group Model

Acknowledgment and Suggested Citation

Acknowledgment

This resource is based upon work supported by the National Science Foundation under Grant Nos. 1834620, 1551221, and 2137791. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Suggested Citation

Gates, A., Roach, S., Villa, E., Kephart, K., della-Piana, C. & della-Piana, G. (2008). The Affinity Research Group Model: Creating and Maintaining Effective Research Teams, Los Alamitos, CA: Computer Society Press.