EXPANDING PARTICIPATION THROUGH THE UNDERGRADUATE RESEARCH EXPERIENCE

AFFINITY RESEARCH GROUPS

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Common Themes: Success in Academia

[Quintana Baker 00; Seymour Hewitt 97; Rodriguez 93; Astin 92]

- **Faculty**
  - Display initiative and leadership on issues of diversity
  - Share values and help define department culture
- **Students**
  - Interact with faculty outside classroom
  - Set realistic goals
- **Creating Community**
  - Encourage individual student to remain and participate
  - Create opportunities for leadership
  - Foster collaborative work
- **Mentoring**
  - Nourish continuum of master-journeyman-apprentice
  - Facilitate shared academic and research experiences

AFFINITY RESEARCH GROUP MODEL

Focus

- Recruit competent but not confident student
- Develop skills
- Build support structure

Foundation

- Cooperative teams
- Integrated model
- Best practices

Foundation: Cooperative Teams-1

Benefits:

- Create higher quality products
- Achieve mastery or competence of task
- Develop social network
- Increase self-esteem

Foundation: Cooperative Teams-2

Elements:

- Build positive interdependence within the group
- Support members' progress and involvement
    - Promotive interaction
    - Constructive critique
- Develop strong individual through accountability
- Teach and practice team skills
- Review on a regular basis how well the group is functioning and achieving its goals

MODEL COMPONENTS

- Orientation
- Research project framework
- Defined deliverables
- Regular meetings
- Outreach involvement

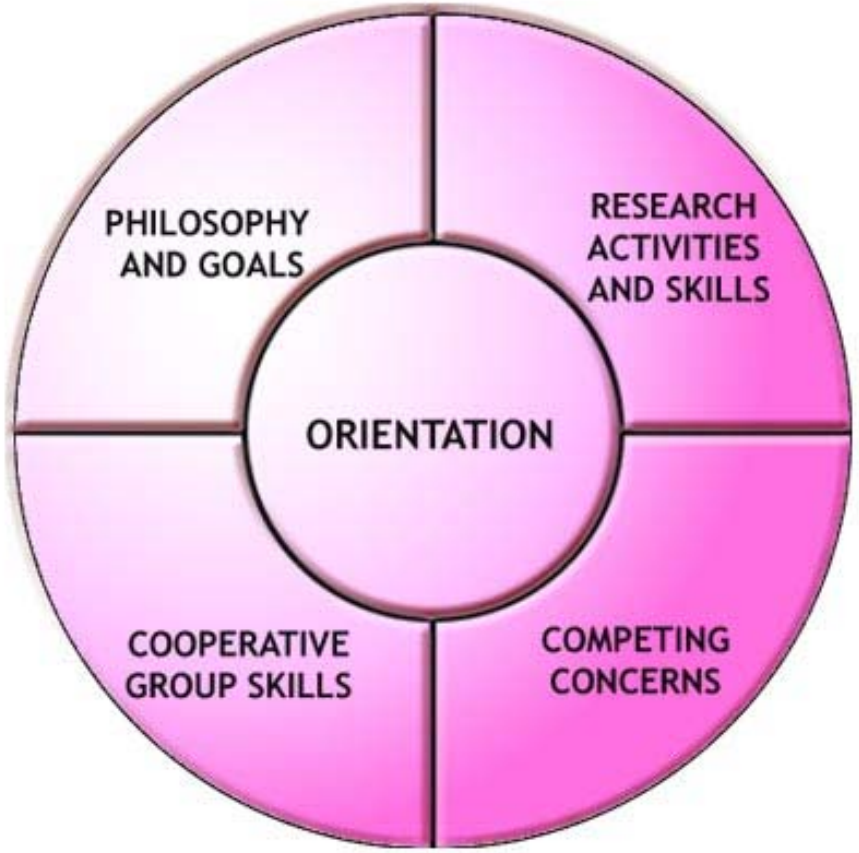
ORIENTATION

Purpose:

- Facilitate assimilation of new students
- Increase ownership of model

Benefits:

- Understand basic group/research skills
- Reevaluate model



RESEARCH PROJECT FRAMEWORK

Provide a framework in which students can realize the relevance of their assignments

Description

- Define mission and goals
- Map tasks to goals
- Define activities and timeline
- Promote project and time management

Benefits

- Understand importance of work
- Understand steps toward completing tasks
- Facilitate setting goals and balancing time

DEFINED DELIVERABLES

Define milestones for the project

Description

- Associate deliverable with assigned task
- Provide constructive criticism of deliverable
- Examples: presentation, critical review, summary, literature review

Benefits

- Develop domain expertise
- Hone technical and communication skills
- Contribute tangibly to project
- Structures individual accountability
- Track progress

REGULAR MEETINGS

Report progress, refine goals, solve problems, and discuss research

Description

- Structured meetings
- Status and problem reporting
- Discussion/presentations
- Teach concepts
- Constructive criticism

Benefits

- Promote positive interaction
- Structure individual accountability
- Practice group and communication skills
- Develop domain expertise development
- Evaluate goals, tasks, and methodology

OUTREACH INVOLVEMENT

Students become involved in K-12 outreach activities.

Description

- Involve in outreach activity
  - Organize activity
  - Define component
  - Deliver existing component
- Discuss issues concerning recruitment and retention with K-12 students

Benefits

- Develop organizational skills
- Develop communication skills
- Fulfill desire to contribute to the community
- Relate to students—more effective recruiting

STRATEGIES

SUMMARY

- Adaptable model
- Enhanced mentoring
- Benefits
  - Become lifelong learners
  - Develop technical and communication skills
  - Learn lessons on managing failure
  - Understand methods and process of research
  - Communicate and work in teams
- Handbook and workshops

http://www.cs.utep.edu/SERG/ARG/Affinity.html

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