Department Action Teams:
A New Model for Empowering Faculty to Make Sustainable Change

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Overall Project Goal

"To influence the culture of STEM departments at AAU universities so that they will use sustainable, student-centered, evidence-based, active learning pedagogy in their classes, particularly at the first-year and sophomore levels."

— Association of American Universities

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Multiple change perspectives

Scientific Management
Use incentives and rewards to influence behavior.

Evolutionary
View the university as a holistic system.
Pay attention to external factors.

Social Cognition
Attend to the underlying beliefs that guide decision-making.
Focus on changing underlying structures/norms/goals.

Cultural
Focus on shifting the underlying culture of a department.
Align change efforts with existing cultural features.

Political
Build coalitions to support strategic, collective action.
Leverage existing internal power structures.

Institutional
Leverage existing external structures that influence universities.

A. Kezar, How Colleges Change: Understanding, Leading, and Enacting Change (Routledge, 2013).

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Work across university "layers"

Faculty
    Departmental Action Teams (DATs)

Department
    Visioning and Alignment Process

Administration
    Teaching Quality Framework
    Data Analytics
    Classroom Observation Protocol

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Improving STEM education is hard!

INTENDED OUTCOME

	PRESCRIBED	EMERGENT
INDIVIDUALS	Disseminating Curriculum & Pedagogy 30.4%	Developing Reflective Teachers 33.5%
ENVIRONMENTS	Enacting Policy 27.7%	Developing Shared Vision 8.4%

ASPECT TO BE CHANGED

Henderson, Beach, and Finkelstein, *J. Res. Sci. Teach.* **48**, 952–984 (2011)

Typical change strategies (disseminating curriculum & enacting policy) don't create sustained, systemic change

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Faculty Learning Community

An FLC is:

"a cross-disciplinary faculty and staff group of six to fifteen members (eight to twelve members is the recommended size) who engage in an active, collaborative, yearlong program with a curriculum about enhancing teaching and learning and with frequent seminars and activities that provide learning, development, the scholarship of teaching, and community building."

Cox, M. D. Introduction to faculty learning communities. New Directions for Teaching and Learning, 97, 5–23 (2004).

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Departmental Action Team

Department Action Teams (DATs) are a new type of faculty working group that empower faculty members within a department to make sustainable change by designing and implementing structures to address an educational problem of broad-scale importance.

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Why Implement DATs?

Department Action Teams (DATs) are a better model for creating change in a department

- Built on teams of faculty (and others) in a single department

- Work over an extended time (at least 1 year)

- Focus on large-scale issue of departmental and personal importance

- Implement solutions that are structural, adaptable, and sustainable

DATs vs. FLCs

	FLC	DAT
Subject	Faculty	Faculty, postdoc, student, or staff
Object	Teaching of individual courses	Department-wide educational issue
Tools	Education research Course-level data External facilitation	Education, institutional change, and object-related research Department-level data External facilitation
Community	Fellow participants (from multiple departments) Facilitator(s) Students in the participants' courses	Fellow participants (from one department) Facilitators Department members (faculty, students, and/or staff)
Division of Labor	Participants transform their own courses individually Strong distinction between participant and facilitator roles	Participants work collectively on a common goal Facilitators sometimes act as participants Departmental hierarchies/roles
Rules	Participant agency Community	Participant agency Community Collaboration
Outcome	Participant growth as individual teachers Transformed courses	Participant growth as collective change agents Transformed department

Example DAT: Potions Department

Area of Focus (chosen by participants): The underrepresentation of women and students of color among undergraduate majors

5 participants (2014-2015 academic year)
- 2 tenured, 2 untenured, 1 postdoc
- 2 women, 3 men

8 participants (2015-2016 academic year)
- 1 tenured, 2 untenured, 1 postdoc, 1 staff, 3 grad students
- 6 women, 2 men

18 1-hour meetings since 10/28/2014

2 facilitators (including me)

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Formation & Recruitment

Facilitators presented the DAT idea at a faculty meeting after securing approval of the chair.

Participants signed up in person and via email.

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Participants signed up in person and via email.

"I signed up as interested in the DAT because of a specific area ...: trying to improve the experiences of women and underrepresented minority [Potions] majors. I thought the DAT might be a good way to work with a group to collect more information on where things stand now and think about changes and ways to track changes in the future."

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Shared Vision & Norms

What is your vision for Potions students? What should they do? What should they learn? Who should they be?

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- Diversity
- Research skills & participation
- Community support
- Learning how to learn
- Scientific communication
- Other practices: reasoning, problem solving, intuition
- Diverse and inclusive career pathways

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Shared Vision & Norms

Facilitation

- Logistical support
- Encourage collaboration, openness, and mutual respect
- Ask questions to uncover implicit assumptions

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"Having [the facilitators] moderate the DAT seems to reduce any preexisting hierarchy among members of the DAT that exists from department structures. This is appreciated by us junior members!"
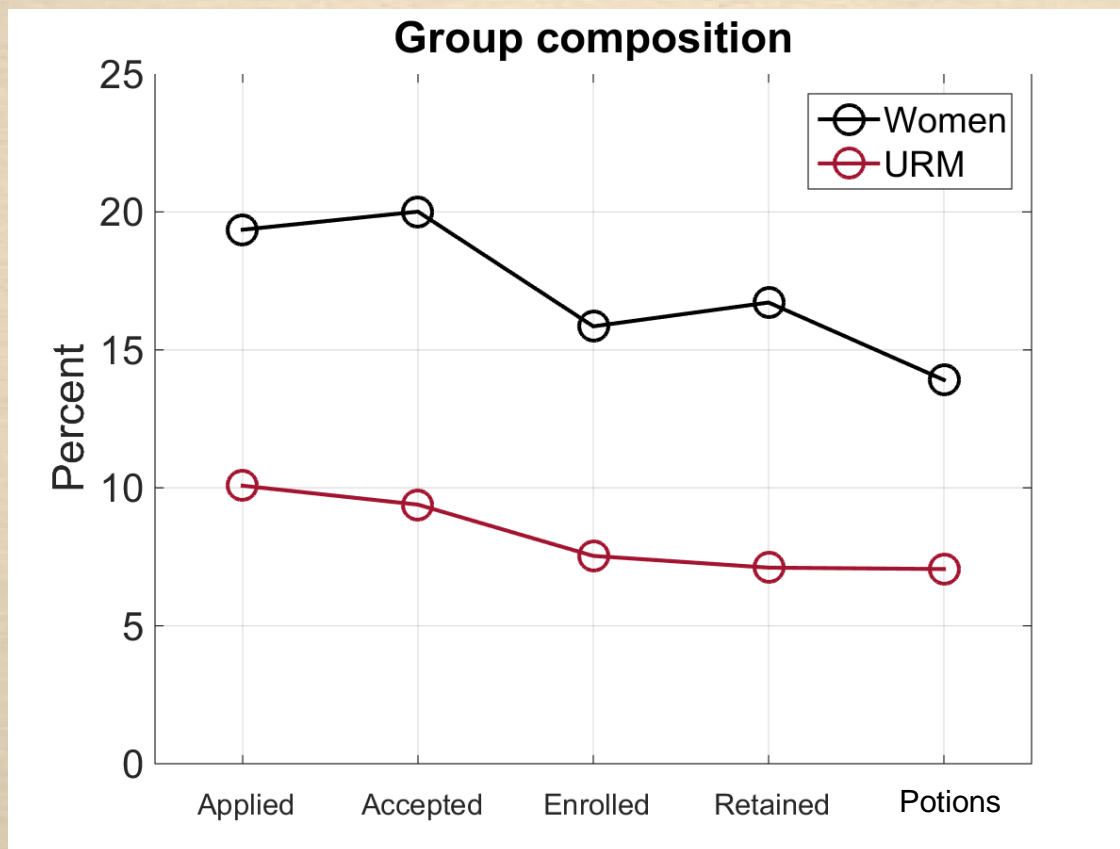
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Data & Solution Exploration

Analysis of 10-year dataset on student trajectories through the major
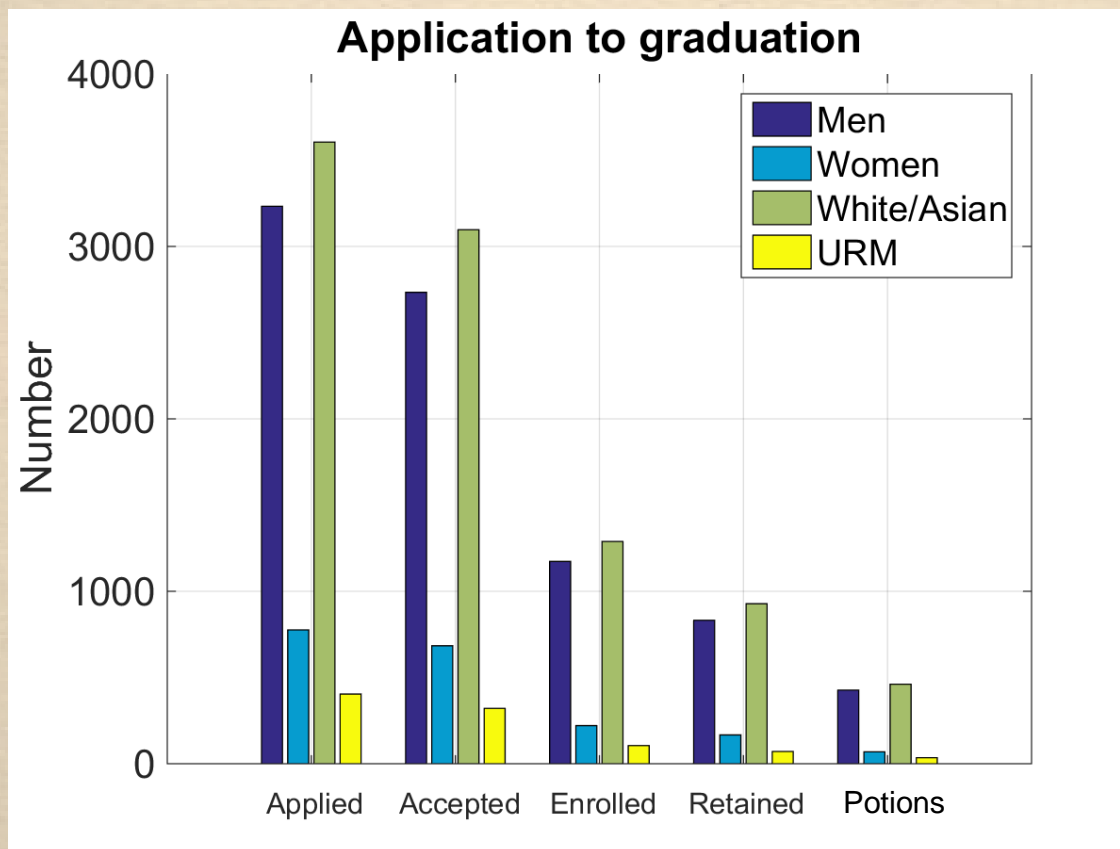
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Data & Solution Exploration

Possible actions:

- Create a majors "happy hour"
- Create a scholarship for women/URM undergrads
- Change use of gendered language by faculty
- Create a summer bridge program
- Outreach to high schools to recruit students
- Presenting "best practices" at a faculty meeting
- Build a stronger mentorship program
- Have the introductory honors course taught by someone who really focuses on equity
- Have an ongoing collaboration with other programs supporting women/URMs

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New Department Structures

Creation of a report with in-depth student data analysis

Creation of a Committee on Representation, Retention, and Recruitment (R^3, continuation of DAT)

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"[I]f they hadn't stood up at the faculty meeting and announced that there were resources to figure out some type of change to the department, then probably this wouldn't have happened."

Beyond the first year

DAT has continued as R^3 committee , added members, and defined new goals:

- Define structures, procedures, and goals for R^3 to enable it to have broader involvement in the department and sustain its mission. Maintain a "DAT-like" culture.

- Influence the undergraduate admissions/recruitment process; increase diversity of applicants and people who actually choose to enroll.

- Build more community in the department for undergraduates

- Influence basic/simple faculty practices (e.g., pronoun use).

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Beyond the first year

"I enjoyed talking with those people, I enjoyed thinking about those issues . . . I liked to hang out with them for an hour every two weeks."

"It's valuable in that I feel like we are moving towards really effecting change."

"Why are so many of these things the DAT did . . . not part of the department plan? . . . It's frustrating to me that the [Potions] community here doesn't seem to care . . . So working with people who care . . . that was just really nice."

Questions?

Core Commitments

Features of target departmental culture:

- Students are viewed as partners in the education process.

- Educational experiences are designed around clear learning outcomes.

- Educational decisions are evidence-based.

- Active collaboration and positive communication exist within the department and with external stakeholders.

- The department is a "learning organization."

- The department values inclusiveness, diversity, and difference.

Note: Features of learning organizations: systems thinking, personal mastery, mental models, shared vision and team learning

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