

Leadership

CASE STUDY

NASA: LEADERSHIP ALCHEMY



Challenged to create a development program for future leaders and managers, the Chief Financial Officer team at the Goddard Space Flight Center responded with a unique, employee-tailored leadership program. This groundbreaking program, called Leadership Alchemy, was launched in 2002 exclusively for the accounting and budget community. Based on the power of personal development and the strength of leadership vision, the program has been so successful that a second class is underway, with participants from throughout Goddard Space Flight Center. Leadership Alchemy exemplifies the enormous potential for grassroots programming within the federal government.

EXPANDING OUR KNOWLEDGE OF EARTH

Designed to look and feel like a college campus, the facilities and grounds of NASA Goddard Space Flight Center (GSFC) in Greenbelt, Maryland are one indicator of the Center's strong commitment to growth and development, and a hint at its tendency to do things a little differently. Established in 1959 and named after the father of modern rocket propulsion, GSFC is home to many of NASA's premier research efforts. Scientists and engineers at Goddard are central to NASA's Space and Earth Sciences Enterprises and have highly diverse capabilities. Among their many responsibilities are leading the Earth Science Program, a long-term project studying the environment of planet Earth, and operating the laboratories that develop, build and test many of NASA's unmanned spacecraft and space shuttle payloads. Approximately 9,500 civil servants and contractors work at GSFC's main campus in Maryland and its facilities in New York, Virginia, and West Virginia. It is one of ten NASA installations located throughout the country.



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BUILDING THE NEXT GENERATION OF LEADERS

As part of Goddard's leadership team, the Office of the Chief Financial Officer (CFO) supports the Center in all of its strategic goals, but has significant responsibility for leading the implementation of two of these goals: (i) *to accomplish the Center's mission through a vital and effective workforce*; and (ii) *to organize science, technology, flight mission, and business processes to achieve greater productivity*. A key commitment for both of these goals involves innovation in training and development.

As part of the Office of the Chief Financial Officer team's Performance Plan, they committed to:

- ◆ Ensuring the workforce is offered opportunities to develop the latest cutting-edge skills and behaviors required for effective leadership
- ◆ Enhancing resources and financial management career development and training and providing functional leadership to the resources community.

Leadership Alchemy represents a grassroots approach to leadership development.

Those two goals hit close to home for GSFC CFO Nancy Abell. While she had responsibility for the Center at large, she also had short-term needs in the finance community that required her immediate attention. Projected retirements threatened to quickly deplete the leadership ranks in the 350 person organization. Abell seized the opportunity to create an organization-wide development effort with the finance team as the "pilot project." Subsequently, Abell charged her Special Assistant Gail Williams with designing and implementing a fresh and inventive leadership development program for the CFO's office. The program had to help create a new generation of leaders that would support the overall NASA goal of attracting and retaining a diverse workforce. Given retirement pressures, the program needed to have an immediate and significant impact on the participants. Run-of-the-mill development programs would not do. This program needed to be high-impact and fast-acting.



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In response to this challenge, Ms. Williams developed Leadership Alchemy in collaboration with GSFC's Office of Human Resources and the expertise of outside contractors. Leadership Alchemy is unique in its approach to leadership development and the grassroots nature of the program's creation. Although NASA has an abundance of professional development programs at the agency level and a recently created Agency-wide Leadership Model, this program represents a bottom-up, employee-tailored curriculum. Leadership Alchemy embodies the inspiration and creativity unique to NASA's bold mission to learn, explore, and protect while acknowledging the specific needs of the GSFC community and the people who work there.

The Philosophy of Leadership Alchemy

The guiding philosophy is that leadership is a “way of being” and that leaders are best developed from the inside out.

Leadership Development as Personal Development

Leadership Alchemy focuses on the development and realization of a personal leadership vision that is related to but distinct from the mission of GSFC. The program's operating premise is that personal development will translate into workplace success. "From the start," according to one participant, "it was all about me and my personal growth." The guiding philosophy is that leadership is a "way of being" and that leaders are best developed from the inside out. This personal focus does not stand in competition with professional development; rather, there is a symbiotic relationship between the two that is mirrored by the curriculum's use of both coaches (external to Goddard) and mentors (upper-level managers and leaders).

With Leadership Alchemy, the "personal" becomes the "professional" and, in turn, organizational. While work experiences at Goddard are not the focus of the course, they inform it, and the program is designed to support the success of the GSFC as a whole. To enhance performance and build the GSFC's organizational capacity, the program focuses on participants' abilities to influence, coach and enable others, to build trust and adaptability, and to form partnerships, alliances and teams. Program participants come to understand that the fundamental practices of leadership come to life both inside the community and in each leader's work setting.



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Distinction between Leadership and Management

In the view of program designers, leaders may or may not be managers. The ability to be a leader does not depend on a job title or number of subordinates. In the course's introductory session, facilitators make a clear distinction between leadership and management. They suggest that leadership is a way of being, a complex and highly nuanced activity that consists of trust-building, effective listening, vision and a focus on the future. In contrast, management is a task, an operational activity associated with the day-to-day environment of a particular job function, and a focus on the present. Leadership Alchemy promotes the idea that anyone in any position can be a leader, which effectively complements NASA Headquarter's philosophy that leaders have several potential career paths.

Basic Tenets of Leadership Alchemy

- ♦ Everyone can and should be a leader, regardless of whether they supervise others.
- ♦ Learning begins with an assessment of the learner's current state and active planning of future learning and career goals.
- ♦ A learner is part of a community where relationships are built on trust and respect for learning and differences.
- ♦ Learning occurs best in the context of a cohort of committed learners.
- ♦ One learns in a holistic fashion (integrated mind, emotions, and body).
- ♦ Leadership is more than "what you need to know" and "what you need to do" - it is also about who you are in the context of the organization.
- ♦ By changing yourself, you can affect and change others.
- ♦ Leadership and management competencies, although overlapping, are distinct.
- ♦ A leader's role is to influence both the context and the mood of the organization.
- ♦ Before you can lead, you must be able to connect with and generate trust in others.
- ♦ Language is generative - language does more than describe, it creates our reality and our identity. Mastery of the power of language is essential to leadership.
- ♦ Energy follows attention. Through practice we can choose to focus our energy on the outcomes we want to create.
- ♦ Learning can and should be fun.
- ♦ How we see the world determines the possibilities we identify and the actions we take.



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The Content of Leadership Alchemy

Program content is a balance of classroom and individual learning over nine months and comprises: 25 days of workshop sessions, regular meetings with a mentor, individual and group coaching, the creation of an individual Leadership Development Plan, and the completion of individual and team assignments in the Learning Guides, including readings from selected books and articles. Participation in the program also requires periodic self-assessment reports that are reviewed by the program facilitators, interviews with three GSFC leaders about effective leadership and unwritten organizational rules, and shadowing a middle or senior-level manager for one week. The program components, while highly demanding, are designed to be completed while the employee maintains a normal workload.

Leadership Alchemy divided into three phases: 1) Gaining Personal Insight and Leadership Mastery, 2) Creating the Desired Organizational Future, and 3) Transforming Knowledge and Skill into Wisdom and Action. Movement from one phase into the next is noted by a change in workshop topics, assigned readings and required activities, like leadership interviews. Within this structure, Leadership Alchemy emphasizes a subset of the Leadership Development Competencies from NASA's specially developed Leadership Model. (See a presentation on [Leadership Alchemy](#).)

Core Competencies Developed Through Leadership Alchemy

- ◆ Personal Effectiveness that Fosters Learning and High Performance
- ◆ Relating to Others
- ◆ Working to build trust and supportive relationships and networks
- ◆ Influencing others
- ◆ Demonstrating generous listening skills
- ◆ Leading and Managing Change
- ◆ Communicating a vision for change
- ◆ Planning and implementing organizational change
- ◆ Leading and Managing People
- ◆ Promoting teamwork
- ◆ Appreciating the richness of diversity and utilizing the full range of contributions of others
- ◆ Resolving conflict



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Participant Feedback

"Leadership alchemy was the best training I have ever received (including formal and at work). It truly is a life changing experience. It focuses on the internal aspects of change and makes you aware of how to change your thinking and perceptions."

"I handle pressure much better. I share responsibility on my work team. I am less defensive and although I may disagree with someone, I am able to understand their position."

"I realize the importance of creating community with my co-workers."

The People of Leadership Alchemy

While Leadership Alchemy stresses the ability of every person to be a leader, admission to the program is competitive and is currently limited to employees at the GS 11-15 levels. The 16 participants in the 2002 pilot program were drawn exclusively from GSFC's accounting and budgeting community. For its second class, organizers expanded the program Center-wide. The second class is comprised of 22 spots, with engineers and business employees filling the majority of the class and only one financial employee in the group. The class also includes two federal employees from the Departments of Agriculture and Justice. Reflecting the program's philosophical differentiation between management and leadership, most of the participants are not supervisors.

Leadership Alchemy elicits extraordinary personal commitments from the participants, who report significant benefits from the program in terms of personal and professional growth. When asked to speak on behalf of the program, one participant stated that Leadership Alchemy requires a commitment to change. "If you aren't willing to change," she indicated, "this is not the program for you." This participant was originally hesitant about the program's unorthodox approach of Leadership Alchemy, claiming that she is not "touchy-feely." However, at the end of the program this same participant reported a tremendous personal as well as professional transition. She found that the skills she learned had translated into a different way of being in all aspects of her life. Critical competencies, such as active and generous listening, continue to be displayed by program participants even outside the work environment.

The philosophy of Leadership Alchemy places much of the learning experience squarely in the context of personal relationships within the participant group, between participants and their GSFC co-workers, and between participants and facilitators. In this respect, the program facilitators had to not only be knowledgeable and skilled at delivering information, but also had to be involved in the ongoing program as guides and coaches.

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Facilitators and participants communicated on a weekly basis, trading thoughts and comments on written assignments and group activities, and sharing ideas about the program's development.

A Different Kind of Leadership Development Program - Key Components

Leadership Alchemy allows and promotes latitude and exploration to encourage participants to develop their individual leadership visions. Learning is addressed creatively and takes place in community, both within the workshop and outside the workshop setting. Participants are thus challenged to learn with flexibility, to practice the leadership competency of adaptability in their very approach to development. The following are some examples of the creativity and energy driving the program's success.

Creating an Environment for Learning

Program facilitators take context and mood very seriously. While sometimes using work experiences to illustrate a point, they strive to create a non-work like setting and learning atmosphere. The day before each session, facilitators arrange the training room to create a mood and setting that transforms the space into a supportive and engaging place for learning and personal development.

An Eye for Experiential Learning

Participants are required to engage one another in interesting, unique and often new experiences for the purpose of illustrating and experiencing critical points. One participant noted that a key to the success of the program was the use of non-traditional simulations and exercises to address issues like trust and communication challenges. Such imaginative and compelling activities highlight key issues and further strengthen relationships between participants.

Teaching Each Other

While Leadership Alchemy has a set classroom curriculum, the participants and facilitators work together to guide the sessions. While meticulous planning is involved for each workshop and activity, facilitators recognize that the ability to adapt curriculum and program structure to the needs of the participants is of foremost importance for the overall success of the program. This approach is based on the belief that "the wisdom is in the room" and that one learns best about leadership by being offered the opportunity to be a leader.

Teaching Oneself through Action and Reflection

The program develops individual potential by providing the mental and physical space for participants to define and realize their own leadership vision. Supported by activities that apply action learning and incorporate real work applications, participants are given the opportunity to "act in ways consistent with putting one's vision into action." In addition to action learning, the program emphasizes the practices of reading and reflection, emotional intelligence and relationship building, appreciative inquiry, and developing the presence of a leader. Leadership Alchemy personalizes the learning experience through a form of participant journaling, based on specific prompts, that allows for nearly real-time feedback from program facilitators on the progress participants are making toward putting their knowledge into action.

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Supervisor Testimonials

"She considers her efforts from a broader perspective. She seems to understand better how her work fits into the bigger picture at Goddard and at NASA... The broader view makes her more valuable as a team member."

"I draw strength from working with such empowered individuals. To the extent that other people feel the same, the organization becomes a synergetic place to work - successes breeding successes."

EARLY ACCOLADES AND AWARDS

Leadership Alchemy is a relatively new program and the evaluation components are still being developed. Nevertheless, feedback from the first pilot was extremely positive. In terms of personal outcomes, participants engage in on-going and informal self-assessments and are required to complete a more formal questionnaire at the beginning and end of the program. In addition, participants remain in constant communication with their coaches, some of whom also serve as program facilitators. Perhaps the best reflection of participant growth, however, comes from the managers who observe participants' behavior on the job for the duration of the program. As participants put their newfound skills to work in their current positions, managers note their progress.

Career success for participants

Before the first class graduated, the buzz had already started. Participants and supervisors were noticing a marked difference in attendees' leadership competencies. As a result, the Office of Human Resources was asked to sponsor the program on a Center-wide basis, offering the opportunity to participate to members of Goddard's science, engineering, and business communities. Additionally, the program and sponsors were recognized for excellence in the pilot program, winning the NASA Chief Financial Officer's Financial and Resources Management Improvement Award in 2002 and the Goddard Exceptional Team Honor Award in 2003.

Leadership Alchemy's first participants completed their nine-month program in August of 2002. The graduation ceremony was attended by senior management from across GSFC, and word of the success and impact of the program quickly spread. The program does not promise a promotion, pay raise, or professional advancement in any sense outside of personal development. However, of the 16 program participants in the pilot year, 56 percent received new jobs with increased responsibilities and 36 percent were promoted. (Read more [feedback](#) about the 2002 and 2003 Programs.)

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FUTURE VISION

The central ambition of the Leadership Alchemy program is to create "ambassadors of positive change" throughout GSFC. While noting the challenges of funding and finding qualified facilitators associated with extending the initiative, the Program Director believes in taking Leadership Alchemy as far as resources will allow. Now that the program has expanded outside of the CFO's Office and is open to employees throughout GSFC, the next step is to craft similar programs for employees at different grade levels. The goals of the program are to first expand to senior-level managers and executives and then, true to the program tenet that everyone can be a leader, to grade levels below GS-11.

CONTACTS

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