

Strategic Talent Management: Implementation and Impact of a Leadership Development Program in Radiology

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Abstract

The rapidity of change and increasing complexity of the academic medical center environment require a talented and engaged workforce with competencies in adaptability, capacity for working in empowered and diverse interprofessional teams, and self-efficacy. Radiology—a crosscutting field that interfaces with most other biomedical disciplines and that is often at the forefront of technological disruption—is a potentially ideal venue to focus professional and leadership development to create positive organizational value. In this report, we detail the design of and 9-year experience with a departmental leadership academy at a large academic center intended to foster team-based skills in early to midcareer faculty and staff. Over the past decade, 100 participants have completed the program with 80% retention, substantial professional growth, and increased capacity for mentoring others. This in-house, customized leadership development program is aligned with our strategic and cultural imperative to promote nimble, engaged, and empowered teams in a diverse and inclusive setting.

Key Words: Gender, leadership, diversity, professional development

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INTRODUCTION

Human talent is our most valuable product in higher education, and a high degree of adaptability and managerial skills within the current and future workforce is needed to produce nimble organizational cultures conducive to navigating challenges [1]. In the setting of increasing complexity and growth of academic medical centers, the importance of recruiting, retaining, and developing a talented and engaged workforce is paramount. Market consolidation of health care systems

has especially contributed to rapid change in organizational structures and decision-making processes, diminishing the autonomy of individual health care professionals and necessitating collaboration across traditional professional boundaries.

The field of radiology is inherently driven by rapid technological innovation and thus faces a continuous need to adapt to rapid change. Furthermore, radiology leaders interact closely with both the health system C-suite and almost every other medical discipline to facilitate care delivery amid mounting pressures to lower cost, enhance efficiency, and embrace innovation.

ESTABLISHMENT OF THE RADIOLOGY LEADERSHIP ACADEMY

The Radiology Leadership Academy (RLA), an in-house leadership development program, was established in

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2009. We built the RLA on the foundation of a departmental strategic plan that emphasized the goals of excellence in faculty and staff recruitment and retention; growth as a national leader in radiology practice quality improvement; and achieving top-ranked status for our research programs. A highly collaborative environment facilitated our commitment to develop a leadership program that would support an engaged and empowered network of local leaders in a variety of clinical, research, and educational roles and a pipeline for succession planning.

Relative to other academic professional development programs, the RLA was built on a more holistic model with a balanced emphasis on skill building for personal development and organizational needs. Although most programs focus exclusively on faculty, a parallel purpose of the RLA was to create an environment supportive of innovating thinking through interprofessional and diverse teams. The success of other leadership academies [2] inspired us to similarly promote active engagement in the RLA by both faculty and staff-aspiring leaders.

Over the past two decades, many professional development programs and workshops have been developed and are widely available to academic faculty, such as those offered through the Association of American Medical Colleges and medical specialty professional societies. Our decision to develop an in-house, longitudinal program was based on three factors. First, our interest in having faculty and staff develop long-lasting team-based relationships was not supported by most offerings. Second, we valued embedding organizationally relevant team projects that could be implemented locally. Third, the size of our department (nearing 1,000 employees) and availability of a core of superb facilitators across the business school and other parts of the university made a custom program feasible. Smaller organizations might find outsourcing more economical.

In this article, we share our experience in developing and implementing an interprofessional leadership development program within a large academic radiology department. Herein, we discuss program design, methodology of our selection process, and positive impact on the individual, team, and overall culture of our organization over the past 9 years.

Program Design: Curriculum and Delivery Methods

The overarching goal of the RLA was to develop highly engaged leaders who offer innovative solutions to adaptive challenges within the department, institution, and community. We designed the program structure

based on successful models both external and internal to our institution [2-4]. RLA was constructed as a 9-month, intensive program to build the foundational knowledge and key leadership competencies required to effectively lead our tripartite academic mission (ie, research, education, and clinical care). The design process spanned a period of 7 months, and the inaugural RLA program cohort commenced in October 2009. Principles central to the curriculum design were (1) broadening awareness and understanding of our department's multifaceted role within the academic health center and (2) building key leadership competencies. One important design consideration was cohort composition. We chose to include both faculty and nonfaculty in each cohort to offer the best opportunity for shared awareness, meaningful learning, and positive organizational outcomes. With a core curriculum as the program foundation, individual course modules may be revised annually based on participant feedback regarding relevance to and impact on the learning experience, current environment or industry shifts, and organizational needs (Table 1).

Each cohort met for one full day per month of "classroom" learning, September through May, aligning with the concept that leadership training should take place over time and offer breaks between courses to foster reflection [5]. We used a variety of content delivery methods, including traditional didactic modules, self-learning through assigned readings and group discussions, expert panel discussions, and experiential learning (eg, role play or small in-class projects). Several individual assessment tools were also utilized, including Everything DiSC Workplace profile, Thomas-Kilmann Conflict Mode Instrument, and 360° feedback survey (Leadership Mirror from Development Dimensions International). To supplement learnings in the course, program participants are also provided access to online supplemental learning tools such as those available through subscription-based learning sites, such as [Mind Tools.com](http://MindTools.com) and Lynda.com, which provide modules on management and leadership competencies. In addition to classroom learning and assessment tools, each participant was assigned to a four-person team to design, plan, and execute a real-world project aligned with a departmental strategic priority. The decision to include such a project was based on the knowledge that leadership programs may fall short of their intended impact if they are decoupled from real-life work settings [6]. RLA program completion required each team to deliver a final project presentation in June.

Table 1. Overview of RLA course curriculum modules by leadership competency area

Leadership	
Competency Area	Modules
Leadership theory and concepts	Leadership Theories and Styles* Emotional Intelligence* Authentic Leadership
Self-awareness and management	360° Feedback (using Leadership Mirror from DDI)* Interpersonal Effectiveness (using DISC model of behavior)* Time and Self-Management* Seeking Feedback and Building Self-Awareness
Leading teams and developing others	Teamwork and Team Dynamics* Setting Goals and Reviewing Results* Navigating Conflict (using Thomas-Kilmann Instrument)* Empowerment and Delegation Human Resources Management
Leading an organization	Leading Change* Diversity, Equity, and Inclusion* Fostering Innovation Strategic Planning Decision Making Organizational Architecture
Business concepts	Financial and Accounting 101* Business of Academic Radiology* Quality and Process Improvement* Project Management Information Management
Communication skills	Crucial Conversations* Principled Negotiations* Persuasive Presentations* Elevator Pitches * Leveraging Social Media Networking

DDI is the name of the company that developed “the leadership mirror” 360 feedback tool: <https://www.ddiworld.com/products/leadership-mirror>; DISC is the name of the tool used (Dominance-Influence-Steadiness-Conscientiousness) (<https://www.discprofile.com/what-is-disc/overview/>). RLA = Radiology Leadership Academy.

*The course curriculum is dynamic, with modifications made annually based on participant feedback, current environment, and organizational needs. An asterisk denotes a module in the core curriculum that was offered to all RLA cohorts.

Selection of Program Participants

Each year, we selected a cohort of 12 participants through a nomination process. A call for nominations was sent to executive and senior leaders in the department and RLA alumni. A selection committee—comprised of the chair, at least one vice chair, and at least two RLA alumni—reviewed all nominations (including prior year nominations) and ranked them based on the following selection criteria:

- Early leadership experience or substantial “promise” for leadership growth (ie, subjective assessment of employees who were highly engaged, sought leadership opportunities and skills, or demonstrated a high degree of emotional intelligence in interpersonal interactions)
- Demonstrated ability to produce tangible results in a timely and effective manner
- Openness to feedback, new ideas, creative and innovative approaches
- Critical thinking for problem solving and appropriate judgment for decision making
- Ability to understand and communicate our strategic goals and priorities
- Strong team leader (formal or informal) who works well with others

The selection committee then reviewed the list of top-ranking individuals to ensure a diverse cohort composition, including impartial balance of staff and faculty, diversity of discipline or subspecialty focus, inclusion of individuals from different primary work sites, gender and ethnic or racial diversity. The recommended list of top 12 candidates plus 2 alternates were submitted for review and approval by the department executive committee. [Table 2](#) summarizes the first nine RLA cohorts, including completion rates, retention, employee classification, and gender.

PROGRAM EVALUATION

We evaluated the success of the RLA by collecting participant information via electronic survey, examining the impact and sustainability of team projects to the organization, and analyzing overall leadership makeup in the department before the RLA compared with present day. Primary outcomes were project success and impact, career progressions, and program involvement. Survey response data were analyzed using χ^2 tests. Secondary outcomes, which we have not yet been able to measure objectively, include improvements to individual and collective leadership competencies.

RLA participants from the first eight cohorts who completed the program and were still employed at the institution ($n = 75$) were asked to complete a one-time survey to assess the RLA’s impact on their subsequent career advancement. Seventy-four people completed the survey, for a 99% response rate. Some respondents did not answer every question, so the number responding is always provided along with percent.

After completing RLA, 39% ($n = 27$) of participants reported that they had received promotions, 83%

Table 2. Summary of participants who were admitted to the Radiology Leadership Academy in the first nine cohorts, including program completion rate, departmental retention, employee classification, and gender

Cohort Year	Admitted	Completed	Still in Emory Radiology	Employee Classification (Faculty; Staff)	Gender (M; F)
2009-2010	12	12	7	3; 9	6; 6
2010-2011	12	12	7	4; 8	3; 9
2011-2012	12	11*	7	6; 6	6; 6
2012-2013	12	11*	10	4; 8	6; 6
2013-2014	12	12	9	3; 9	7; 5
2014-2015	12	10*	11	4; 8	6; 6
2015-2016	12	12	12	7; 5	5; 7
2016-2017	12	12	12	6; 6	5; 7
2017-2018	13 [†]	12*	12	6; 7	4; 9
Total	109	104 (95%)	87 (80%)	43; 66 (39% faculty; 61% staff)	48; 61 (44% M; 56% F)

F = female; M = male.

*Five participants left the program before completion: one participant was deceased, two left the organization, and two withdrew for personal reasons.

[†]For the 2017-2018 cohort, the withdrawal was replaced with an alternate during the first month of the program.

(n = 58) had assumed added responsibilities, 70% (n = 49) had greater involvement in strategic activities, 77% (n = 53) modified their professional goals, and 49% (n = 34) increased their number of direct reports (Fig. 1).

RLA graduates reported putting more time and energy into developing others than before the program (ie, mentoring, coaching, professional development planning) (Fig. 2). This was a significant change ($\chi^2 = 57.01$, $P < .0001$), with more people reporting higher levels of involvement after than before RLA.

Notably, 60% of RLA alumni continued their involvement with the program in one or more ways, such as serving as a presenter or panelist, team project coach, program planning contributor, or mentor to RLA participants.

Team Projects

RLA team projects emphasized four areas: (1) improving the patient or customer (eg, referring physician) experience, (2) improving the employee experience, (3) business

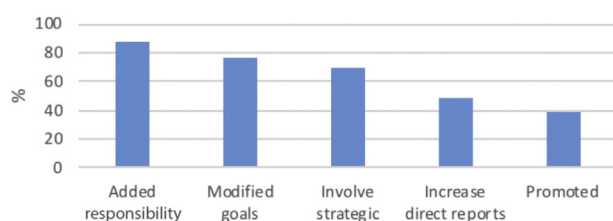


Fig 1. Bar graph demonstrating percent of Radiology Leadership Academy program graduates who reported subsequent growth in various leadership measures.

process improvement, or (4) improved safety or quality of images or services. Nearly all of the team projects that were developed and piloted within the RLA have been partially or fully implemented in the department (Table 3). “Partially implemented” means the project was implemented within a subsection of the department, such as a single site or modality, or is currently in the full implementation phase. Projects often expanded into a sustainable process or program with positive business or cultural impact. Highlighted next are four such projects.

Service Excellence Institute. The Radiology Service Excellence Institute (SEI) is a mandatory service training program for all members of the department. With the goal of fostering a culture of service excellence by establishing service standards and behavioral norms, the SEI

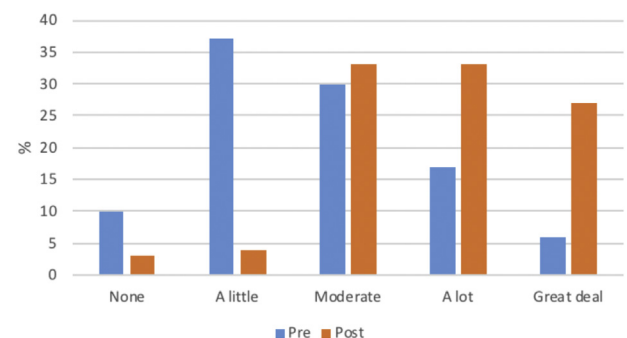


Fig 2. Bar graph showing the time and energy invested in the development of others through mentoring and coaching activities before and after completing Radiology Leadership Academy. The gains in these activities was significant ($\chi^2 = 57.01$, $P < .0001$).

Table 3. Summary of RLA team projects

Area of Study	Project Topics
Patient and customer experience	Improve customer service (Service Excellence Institute)* Reduce patient waits and delays (3)* Improve patient communication and education (2)* Strengthen care partnerships with radiology (2) * Implement preprocedure consultations* Establish a social media platform* Develop and launch a mobile application for patient way-finding Increase pricing transparency
Employee experience	Develop an awards and recognition program* Enhance internal communications (4)* Foster diversity, equity, and inclusion in radiology* Foster a culture of innovation* Standardize employee onboarding process*
Business process improvement	Improved handling of outside radiology studies* Supply charge capture* Electronic patient self-scheduling
Quality and safety	Radiation dose reduction and tracking (2)* Technologist image review feedback tool (2)* Protocol standardization through education (2)* Acquire additional patient history* Study vetting tool to evaluate appropriateness of study* Clinical decision support for emergency medicine*

Bold indicates projects that were fully implemented and scaled to the department level (each described further in Team Projects section).

Number in parentheses indicated the number of team projects related to the topic. RLA = Radiology Leadership Academy.

*RLA team projects that have been either fully or partially implemented in the department.

proposal was conceived of by a RLA team in the 2009 to 2010 cohort. The SEI was launched department-wide the following year (2011) and continues to provide our radiology team members—faculty, staff, and learners—with a strong foundation of both skills and knowledge essential to the delivery of service excellence in support of the departmental and institutional strategic missions. Since the launch of the SEI, patient satisfaction survey (Press Ganey) scores for the department have increased from a mean of 89 to 93, and employee perceptions of a

positive, service-oriented work environment have increased (unpublished data).

Radiation Dose Tracking. Patient radiation exposure during medical procedures involving CT has become a focus of public health as the number of imaging procedures increases. RLA teams in the first and third cohorts worked to develop a systematic way to measure, track, and reduce radiation dose by protocol type and scanner. With the full implementation of those projects, we succeeded in reducing radiation dose and establishing a process for improving CT protocol standardization. Results were subsequently published [7,8].

Awards and Recognition. One of the first RLA team projects to focus more inwardly, on our own faculty and staff, was a project aimed at increasing the perception that excellence is recognized in the department. As a result of the RLA pilot (2012-2013 cohort), a spot award program called “Caught in the Act . . . of Service Excellence” was launched in 2013. This peer-to-peer recognition program recognized individuals observed as going above and beyond for someone else, in alignment with departmental service standards. An annual nominations-based staff awards program was also launched and later combined with an existing faculty awards program to further support a culture of honoring peer contributions.

Additional Patient History. One RLA team (2014-2015 cohort) sought to improve the rate of capture of accurate patient history needed for high-quality image interpretation. After a successful pilot project, the proposed system and process changes were implemented. The resulting gains in the availability of accurate patient history information increased both workflow efficiency and the quality of radiology reports and ultimately the quality of the care that we deliver.

DISCUSSION

Strategic talent management—an integrated approach to acquiring, developing, and engaging top talent—is increasingly important as academic medical centers strive to meet the changing needs of the US health care industry. Leadership is the number one talent issue faced by organizations worldwide, and the need to develop leaders at all levels within the organization is 1 of 12 critical human capital trends [9]. Therefore, effective leadership development programs are a critical part of any talent strategy. However, such programs are not “one size fits all” and require significant resource investment to design and implement. Furthermore, organizations

often fail to measure program impact and thus fail to produce the desired results [6]. Although direct success metrics are challenging for professional development programs, surrogate markers of impact include retention rates, promotion, and measures of employee engagement and satisfaction.

We examined our experience over the past 9 years with the RLA, which embraces an interprofessional and adaptive design dually emphasizing individual skill development and organizational impact. Our radiology department is large and geographically dispersed, operating within an expanding academic health system. A top strategic priority is to ensure a standard “systemness” approach to delivering on our tripartite mission. This in-house, customized program further aligned with our strategic and cultural imperative to promote nimble, engaged, and empowered teams in a diverse and inclusive setting. The downstream positive impact of the RLA on the department and organization is difficult to measure, but multiple ripple effects have been apparent. As demonstrated in Figure 2, many program graduates increased their investment (through energy and time) in the professional development of others. More than half of graduates continued involvement with the program, typically as a session facilitator or team project coach.

Adaptive Design Approach

Our approach to the RLA program design and implementation was an adaptive one. The annual 3-month interval when RLA was not in session allowed review of feedback from participants and instructors to inform modifications to curriculum content and sequencing of content delivery. A continuous improvement culture allowed the program to keep up with new challenges in the environment and changing organizational needs. In our large health system in which the faculty-to-staff ratio was approximately 1:5, we sought a similar RLA class composition. In later years, RLA spots were more evenly distributed among faculty and staff to promote balanced faculty-staff team building as our department leadership construct migrated to a dyad model of faculty-administrative leader pairs.

This approach also resulted in refinement of our selection criteria over time in two ways: First, we recommitted to focus exclusively on those with the strongest leadership *promise* rather than including consideration of those perceived as needing further leadership skill development in their current position. Second, we accepted nominations for individuals who were not members of the department but with whom department members

closely collaborated, such as leaders in the health care system’s information sciences unit. The intent of including these affiliated employees was to further broaden the perspectives represented and to strengthen interdepartmental collaborative relationships.

Interprofessional Nature of the Program

Most academic professional development programs focus exclusively on faculty [10,11]. In contrast, the RLA adopted the interprofessional model of the Woodruff Leadership Academy, which includes physicians, nurses, and administrators from health science schools and hospitals [2].

Coinciding with the inception of the RLA, our health care system implemented an initiative known as “The Care Transformation Model.” Care Transformation’s articulated principles of shared decision making, transparency, and a fair and just culture infused the organizational culture with a patient- and family-centered focus. These Care Transformation values were integrated into the RLA. The SEI program, which was created by an RLA team and subsequently implemented department-wide, provided training sessions for all radiology faculty, staff, and learners to instill the values of patient-centered care and empowered teams. Over time, positive changes became apparent, including flattening of the department hierarchy and proactive communication and idea exchange. The quantity and quality of interdisciplinary efforts increased, such as including both faculty and staff on department committees previously restricted to faculty. As the organization and radiology expanded, members from new locations and services participated and contributed to both the RLA and radiology transformation.

Emphasis on Gender Diversity

Like many STEM (science, technology, engineering, math) fields, academic departments of radiology rank poorly in their ability to attract and nurture the advancement of women [12,13]. Gender diversity in leadership roles lags overall in academic medicine and particularly in diagnostic radiology [14]. Yet the success of creative innovation in imaging science depends on nurturing the best and brightest professionals.

Although minimal gains have been demonstrated nationally over the past decade, during the period described in this article, our department faculty gender composition went from 27% to 39% women. Of unique importance, dramatic changes in the makeup of faculty

leadership positions of vice chairs, chiefs of service, and division directors were seen: from 6% at the inception of the RLA program to the 32% current representation of women faculty leaders. The RLA was an important vehicle to prepare and promote women for intra-departmental leadership progression, creating role models in leadership positions and thus enhancing the value and culture of the organization [15].

SUMMARY

Leadership development is an imperative for talent-dependent organizations, such as academic medical centers, and is especially needed to support future adaptability in an environment with increasing resource restraints. Our 9-year experience with an intensive 9-month leadership program for early to midcareer faculty and staff has been highly positive, both for individual participants and collectively within the department.

TAKE-HOME POINTS

- Human talent is our most valuable product in higher education, and a high degree of adaptability and managerial skills within the current and future workforce is needed to produce nimble organizational cultures conducive to navigating current and future challenges.
- The rapidity of change and increasing complexity of the academic medical center environment requires a talented and engaged workforce with competencies of adaptability, capacity for working in empowered and diverse interprofessional teams, and self-efficacy.
- We demonstrate the value of an in-house interprofessional leadership development program within a large, academic radiology department.
- Investment in the professional development of radiology staff and faculty can promote an engaged and increasingly diverse workforce and build valuable bench strength of leadership skills.

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