The Development and Evaluation of an ADVANCE Professional Developments Series to

Promote Institutional Transformation

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Abstract

This paper reports on the development and assessment of a professional development workshop series implemented as part of an NSF ADVANCE Institutional Transformation grant at a large, private university. The goal of the grant was to increase the representation and advancement of women STEM faculty; it utilized a multi-frame organizational analysis approach (Bolman & Deal, 2017) to examine the organization and the approaches created by AdvanceRIT to change the organization. Evaluation results indicate that the series helped individuals strategically advance their careers, offered opportunities to learn from other women in academia and expand their networks, and share strategies to intervene against implicit bias and discrimination. At the institutional level, evaluation results suggest improvements to culture, including broader awareness of equity and discrimination issues and expanded networks across the institution. Series participants expressed a desire for more change and impact at the institution level.

Keywords: professional development, women faculty, STEM faculty, faculty development

PROFESSIONAL DEVELOPMENT SERIES FOR WOMEN FACULTY

The goal of an institutional transformation project (NSF ADVANCE # 1209115) at a large private university is to increase the representation and advancement of women faculty in Science, Technology, Engineering, and Math (STEM) fields by creating new interventions and resources and by removing barriers to resources that support career success. The work of the grant, which began in 2012 and continues today, influences long-term changes that will transform the Rochester Institute of Technology's culture, promote inclusion, and expand the representation of women on campus and among leadership through a portfolio of interventions. Project objectives: 1) refines and strengthens targeted institutional structures; 2) improves the quality of women faculty's work life; 3) aligns institutional, administrative, and informal systems of power and resources to support and sustain progress towards the project goal; and 4) enhances the working environment, and supports career advancement for women faculty. This paper describes a professional workshop series created to advance the grant's goals and key evaluation results from the series.

Background

Despite an increase in the number of women earning doctoral degrees in STEM fields domestically over the past several decades, there has not been a corresponding increase in their representation in the faculty ranks (National Center for Educational Statistics, 2016; Hill, Corbett, & Rose, 2010). In 2017, 23.3% of engineering doctoral degrees were awarded to women, however, 16.9% of engineering tenure/tenure-track faculty in the United States were women. (Yoder, 2018). Women faculty experience challenges associated with stereotype threat, implicit and explicit bias, and work-life balance, among other issues (Allen & Eby, 2004; Bailey et al., 2011; National Academy of Sciences, 2007a; Sutor, Mecom, & Feld, 2001). To address

these issues, National Science Foundation (NSF) ADVANCE Institutional Transformation (IT) grantees “develop systemic approaches to increase the participation and advancement of women in academic STEM careers” (National Science Foundation, 2018).

The *Connectivity* Series was one professional development component of an NSF ADVANCE Institutional Transformation (IT) project (National Science Foundation, 2018) started at the Rochester Institute of Technology (RIT) in 2012. The focus and themes of *Connectivity* events were initially developed based on the results of a faculty climate survey and a literature review as part of a previously conducted NSF ADVANCE funded self-study (Marchetti et al., 2012; NSF ADVANCE # 1209115). The self-study identified career advancement barriers for current women faculty especially in the areas of career navigation, workplace climate, and flexibility in work/life management balance (Marchetti et al., 2012; Bailey et al., 2011). As part of the self-study, a climate survey was conducted (71% response rate). This study examined gender from a binary perspective (man/woman). However, as the project evolved, all gender identities were considered. More women faculty agreed that their career had been slowed by personal responsibilities (50% of women, compared to 23% of men). Sixty-six (66%) percent of women reported giving up personal activities for professional responsibilities compared to 47% of men. Women (41%) reported they felt that faculty men received preferential treatment with regard to career advancement and that they put forth more effort and reported less satisfaction than men in negotiations.

Barriers identified by the climate survey corresponded to those found in the literature. Career navigation issues sometimes arise due a tendency of women to have weaker self-agency and negotiation skills (Ibarra & Silva, 2010). Career growth can be hindered by a lack of sponsorship from more seasoned faculty (Ibarra & Silva, 2010; Nolan, Buckner, Marzabadi, &

Kuck, 2008). Career navigation issues impact the ability of women faculty to secure advantageous start-up packages, assignments, compensation, and promotions (Judge, 2004). Women often view the workplace in personal terms, as opposed to a process-oriented view many men share where important factors for success include connectedness, support, and interpersonal relations (Allen & Eby, 2004; Bilimoria, Perry, Liang, Higgins, Stoller, & Taylor, 2005; Rosser & Lane, 2002; Bailey et al., 2011). Flexible work arrangements, convenient child care, and tenure clock adjustments may alleviate stress and increase satisfaction to promote work-life balance (Allen, Armstrong, Riemenschneider, & Reid, 2006; Harvard University Faculty Climate Survey 2006/7 Report, 2006; National Academy of Sciences, 2007; Sutor et al., 2001) and childbearing and child-rearing decisions (Berube, 2002; Girves, Zepeda, & Gwathmey, 2005; Mason & Goulden, 2002; National Science Foundation, 2004; Sutor et al., 2001). Both men and women faculty benefit from these flexible work offerings.

Workplace issues exist for women in higher education and these include biases ranging from implicit to explicit (Allen & Eby, 2004; Dey, Korn, & Sax, 1996; National Academy of Sciences, 2007a; Steinpreis, Anders, & Ritzke, 1999); unclear expectations for tenure and promotion (National Academy of Sciences, 2007a; List & Sorcinelli, 2018); a need to gain credibility and respect (Foschi, 1996; Rosser & Lane, 2002; Shackelford, Wood, & Worchel, 1996); feelings of marginalization or isolation (National Academy of Sciences, 2007a; Preston, 2003; Rosser & Lane, 2002; Yen et al., 2007; List & Sorcinelli, 2018); and lack of mentoring and sponsorship by senior faculty and/or administrators (Ibarra, 1993; National Academy of Sciences, 2007b; Nolan et al., 2008; Preston, 2003; Rosser & Lane, 2002; Saenz, 1994; Boice, 1992). To address issues such as these, the *Connectivity* Series at the RIT aims to deliver an effective professional development workshop series for women faculty and staff in STEM. The

series supports the goals of the AdvanceRIT project by removing barriers to resources that support career success and by creating new interventions and resources.

Audience for the *Connectivity* Series

Project researchers created the *Connectivity* Series for all tenure-track women faculty on campus, although all gender identities, and both faculty and staff are now welcome at most events. Targeted *Connectivity* Series events also exist for subpopulations of women faculty: Women of Color (WoC) and Deaf and Hard of Hearing (DHH) women. Information about the workshops developed for these subpopulations has been published elsewhere (Crawford, 2014; Dell et al., 2016). All disciplines represented within RIT (STEM and non-STEM) are considered the target audience for event offerings due to the high prevalence of STEM disciplines within the university. As one of the most visible initiatives within the AdvanceRIT institutional transformation effort, the *Connectivity* Series professional development events engage several hundred people on campus each year. Over one hundred and fifty sessions have been offered over the past six years reaching over one thousand unique individuals with wide-ranging topics.

Conceptual Design of the *Connectivity* Series

The *Connectivity* Series integrates practices that promote and advance women faculty by offering professional development that relates to the themes of retention, recruitment, and advancement that were identified in the RIT self-study. Workshops and panel sessions are designed to develop competencies such as negotiation skills, communication skills, bystander awareness and action, self-promotion, and recognition of and ways to address and interrupt unconscious bias. In addition to these skill domains that enhance the advancement and retention of women faculty, workshops and panels focus on workplace and institutional issues. Example topic areas contained in each of those broader categories are shown in Table 1.

Table 1: *Connectivity* Series topics

Recruitment of Women	Retention of Women	Advancement of Women	Shifting Organization towards Inclusion and Equity
Improving the hiring process	Career satisfaction Career navigation Work-life balance Reducing isolation	Leadership development Recognition of work Scholarship (research and dissemination efforts)	Business case for inclusion Unconscious bias Grant impact

Topics such as unconscious bias education and the business case for inclusion play a role in both the Recruitment and Career Success thematic areas, which include both Retention of Women and Advancement of Women in Table 1. Other topics such as identifying mentors and communication skills span both retention and advancement. The series also promotes offerings by other groups on campus whose work aligns closely with the overall project goals, such as the Women in Science (WiSe) and the Council for the Recruitment and Engagement of Women (CREW) organizations. Table 2 provides a list of offerings in the 2014 and 2015 academic years to provide examples of program offerings.

Evolution of *Connectivity* Series

The focus and themes of events were initially developed based on the results of a detailed self-study as described above, however the series has evolved over the past five years through

Table 2: Example of *Connectivity* Series offerings

2014 Academic Year	2015 Academic Year
<ul style="list-style-type: none"> ● Launch of Connections networking events ● Connect Grants panel discussion ● Post Tenure mentoring series (Connect Grant) ● Women in Science (WiSe) speakers series: NSF tips, leadership, success in science ● Women's Leadership Workshop (Connect Grant) ● Appreciative Inquiry Workshop (Connect Grant) ● Michigan Players: Navigating Dept. politics ● Leveraging Difference to Advance RIT for Department Chairs ● Provost's Town Hall: Leveraging Difference to Advance RIT ● Gender in Negotiations workshop ● Three Part Communicating with Confidence Workshop ● Changing Organizational Culture in STEM 	<ul style="list-style-type: none"> ● Faculty Service Assignments: Learning to Say No ● Connect Grants Launch and Celebration ● Connections Networking Event for Women Faculty ● Unconscious Bias Workshop for Academic Senate ● Promotion & Tenure (P&T) Smarts ● WiSe speakers series: The Only Woman in the Room with Eileen Pollack and State University of New York at Geneseo President Denis Battles ● Launch of Advocates & Allies with first Ally training ● Michigan Players return-Focus on Promotion & Tenure deliberations ● Bystander Awareness (2 workshops) with M. Scully ● Photograph 51 reading ● Supporting Research Focused Faculty at RIT

the use of formative evaluation, assessment, and reflection. The series' target audience was originally tenure-track women faculty on campus with occasional offerings to all genders. After the overall institutional transformation project had gained wide visibility and recognition, more offerings were open to all full-time faculty inclusive of gender identity. AdvanceRIT also created

ways for closely aligned partner organizations to offer events under the *Connectivity Series* umbrella, often providing some administrative and financial support. During the first four years of the grant, the larger-scale and most visible offerings consistently focused on unconscious bias education for tenure-track faculty. However, in order to create momentum towards building a more inclusive campus environment, the series now offers programs designed for both full-time faculty (both tenure-track and non-tenure-track) and staff who work closely with students. It has also expanded unconscious bias education from faculty-focused themes (such as bias in letters of recommendation or within promotion, tenure, search committees) to themes focused on creating vibrant learning and working environments. Series organizers have engaged a group of over twenty people considered *thought partners* from across the university to work with AdvanceRIT in hosting these large-scale, cross-university unconscious bias workshops.

Bolman and Deal Four Frames Approach

Results from the campus self-study informed the creation of a detailed institutional transformation strategy in 2011 which adopted a multi-frame organizational analysis approach (Bolman & Deal, 2017) in order to reframe and improve the understanding of the organization as well as the portfolio of interventions included in the strategy. The project was funded in 2012 and has been underway since.

In their book on “Reframing Organizations,” Bolman and Deal offer four frames or lenses through which individuals experience and view their organizations (Bolman & Deal, 2017). These frames can also inform the strategic approaches created to change the organization (Austin, Laursen, Hunter, & Soto, 2011). The AdvanceRIT project is designed to make progress in all four frames in order to influence long-term changes that will transform the culture, promote inclusion, and expand the representation of women on campus and among leadership (Mason et

al., 2014). Each frame is described below with a connection to how this project was meant to transform the institution.

- **HUMAN RESOURCES:** Improve the quality of women faculty work life, professional development, and reward structures.
- **SYMBOLIC:** Enhance the working environment and support career development for women faculty using symbolic measures that emphasize issues of meaning within the organization.
- **STRUCTURAL:** Refine and strengthen targeted institutional structures, and install practices promoting representation and advancement of women faculty.
- **POLITICAL:** Align institutional, administrative, and informal systems of power and resources to support and sustain progress by shaping the political frameworks that impact the representation and advancement of women.

Use of this multi-frame approach improves understanding of the organization and enabled the team to create a portfolio of interventions within the overall institutional transformation strategy based on thinking that employed all four of the cognitive lenses. Using the frames allowed the team to create and roll out innovative interventions (solutions) while improving the team's ability to identify and successfully navigate barriers and roadblocks during the transformation process. This opportunity for reflection and adjustment increased the odds of success for the overall effort. The Bolman and Deal's re-framing and analysis approach integrated with various organizational change models proved to be helpful. The Bolman and Deal approach, integrated with Kotter's (2002) change process model, offers insights into the typical barriers for the people within an organization to change and essential strategies to

overcome these barriers within each of the four frames as shown in Table 3. The *Connectivity* Series is primarily an intervention within the Human Resource frame, however it has aspects which overlap into the other three frames.

Table 3: Reframing Organizational Change (From Bolman & Deal, *Reframing Organizational Change*, 6th Edition, p. 370, reproduced by permission.) John Wiley & Sons. Copyright 2006.

Frame	Barriers to Change	Essential Strategies
Human resource	Anxiety, uncertainty; people feel incompetent and needy	Training to develop new skills; participation and involvement; psychological support
Structural	Loss of direction, clarity and stability; confusion, chaos	Communicating, realigning, and renegotiating formal patterns and policies
Political	Disempowerment; conflict between winners and losers	Developing arenas where issues can be renegotiated and new coalitions formed
Symbolic	Loss of meaning and purpose; clinging to the past	Creating transition rituals; mourning the past, celebrating the future

The team also integrated the Bolman and Deal approach with Kurt Lewin's (1947) three-step change model to gain insights into how the desired transformation would occur over time. Table 4 demonstrates how the change process was implemented using the Human Resource's Frame or lens at the University level and directly through the *Connectivity* Series. Table 4 highlights how each progressed through the three-steps of the change model – namely unfreezing, moving, and refreezing – over the course of the six-year effort.

Table 4: Reframing Organizational Change Using the “Human Resource Frame” and Lewin’s Change Model

Level	Unfreeze	Move	Refreeze
University	Study, disseminate, and discuss barriers to the recruitment and retention of women STEM faculty using HR objective data, benchmarking, climate survey response data, salary equity findings, start-up package analysis, on-campus faculty award patterns - each by gender	Developed and launched several new initiatives at the University level – <i>Connect</i> Grant program, Connectivity Series workshops , cross-university salary study committee, NSF Indicator package, Faculty Exit Survey Process, COACHE Faculty Satisfaction Survey, Dual Career effort, Promotion Package Preparation (P ³) Groups, P&T SMARTS, Advocates & Allies Program	Developed programs are now part of the university practice. Institutionalized programs are housed within the Human Resources unit, Faculty Career Development, and the AdvanceRIT program office which resides within the Office of the Provost.
<i>Connectivity Series</i>	Topics selected using results of self-study and literature review (Table 1)	Developed and launched workshops and programs based on identified themes. Strengthening of aligned organizations through ADVANCE support. Formative evaluation, assessment and reflection informed evolution.	Programming now led by affiliated organizations and partners.

Promotion Package Prep (P³) is an example of *Connectivity Series* programming launched by AdvanceRIT that has now been institutionalized utilizing this approach to change. This program is a peer support group for Associate Professors who will be preparing their materials for promotion review.

- UNFREEZE: The P³ Group concept was piloted in 2016 with a group of women faculty from five different colleges. The motivation for the formation of this group was AdvanceRIT data indicating women faculty were remaining at the Associate Professor level longer than faculty men.

- MOVE: Based on positive feedback and successful outcomes, the program was expanded to include all faculty seeking promotion to full Professor, Senior or Principal Lecturer. Programming was refined based on feedback from prior participants.
- REFREEZE: Starting in 2019, this programming is now offered and supported by the office for Faculty Career Development unit within the Office of the Provost at RIT.

Methods

The data used to evaluate this program included three sources: a detailed attendance and theme mapping of all events in the series from grant year 2 to 6, results from event evaluation surveys, and focus groups with *Connectivity* Series participants. RIT provided attendance and event data to the Center for Evaluation & Research for STEM Equity at the University of Washington (CERSE), who analyzed the event data and conducted the focus groups. The event mapping file included attendance information for all workshops and events, topical areas of workshops and events, and the Bolman and Deal frames relevant to each event. Quantitative analysis descriptively examined the distribution of event topics and frames over time, and the level of participation. In an iterative and collaborative process, multiple phone calls between AdvanceRIT and CERSE occurred to answer questions, obtain more information, and help target the analysis to be useful to AdvanceRIT.

Evaluation surveys were conducted at 104 of the 162 events in the mapping file (64%). The annually aggregated data from the evaluation surveys was descriptively examined for trends over time. Lastly, four virtual focus groups were conducted in December 2017 in order to understand the impact of the *Connectivity* Series more deeply; the focus groups ranged from three to seven attendees with 24 total individuals participating. The focus group attendees

included mostly tenure-track faculty, as well as three staff members. While primarily tenure-track faculty populated the focus groups, all year five *Connectivity* Series attenders were recruited for focus groups, representing all faculty and staff positions, including lecturers. The four groups interviewed included low attenders (those who attended one event in the previous year), high attenders (those who attended three or more events in the previous year), participants from the Deaf and Hard of Hearing (DHH) events, and African American, Latin American, and Native American (AALANA) women. The focus groups asked about knowledge and experience with the *Connectivity* Series events, individual learnings, tools, strategies, networks that were built through attendance, and recommendations for improving the Series.

Results

Who participated in what kinds of events?

Of the 162 *Connectivity* Series events in grant years 2 through 6, most events focused primarily on retention and advancement, with the goal of building individuals' agency and skills. A smaller proportion of events each year were devoted to organizational learning and development, including unconscious bias related workshops, which had more of a focus on developing vocabulary and awareness at the individual and institutional levels. Over grant years 2-6, the *Connectivity* Series reached a total of 894 unique individuals: 523 identified as women and 371 identified as men. The majority (59%) of those reached by the series were tenured or pre-tenured faculty (526/894). The remaining 41% of attendees included non-tenure-track faculty (14%), staff (25%), and graduate students/postdocs/other (2%). The percentage of attendees in any grant year who were from STEM fields varied from a low of 33% in grant year 6 to a high of 46% in grant year 4. The Tenure-Track (TT) attendees represent over 82% of women TT faculty

(259/315) based on the number of women who were offered the opportunity to attend a *Connectivity* Series event over the grant period in the denominator, and 44% of men TT faculty (266/605).

Although many series events were inclusive of all gender identities and fields, a majority of attendees each year were women from National Science Foundation (NSF) designated STEM fields. Most attendees went to 1-2 events each year. This suggests broad but shallow participation at RIT as a whole. We found a smaller group of individuals, called “high attenders,” who in a given grant year attended three or more *Connectivity* Series events. High attenders were mostly women (79-100% depending on the year) and a small but steady percentage of high attenders were in leadership positions at RIT (6-20% depending on the year). Over the grant period, leader participation was tracked and in grant year 6 the highest participation of leaders was observed with 50 women and 32 men (unduplicated) participating, constituting 16% and 21% of all women and men participants that year, respectively.

Individuals learned about the *Connectivity* Series mostly through email communication, indicating that the events were generally well advertised; scheduling conflicts were the greatest obstacles to further attendance. Many series events were evaluated through post-event surveys. Evaluation results suggest high attendee satisfaction with events. Across the years, 92% on average reported that attending series events was a valuable use of their time.

What resulted from participation?

In order to analyze the impact of the *Connectivity* Series on individuals at the institution, as well as its effects on the institution as a whole, we triangulated data from all three data collection modes described in the methods section. The findings are reflective of all data collected.

Focus group participants specifically indicated that the *Connectivity* Series events helped them to strategically advance their careers whether pursuing promotion and tenure, or helping build pathways to other researchers with aligned interests. In addition, the *Connectivity* Series offered attendees opportunities to learn from and identify with other women in academia, and expand their communities. Interviewees described valuable strategies they learned through *Connectivity* Series events, such as building awareness about bias and being increasingly proactive at intervening against discriminatory acts. These types of learning can result in shifting norms of behavior at the institutional level, causing broader organizational culture to become more inclusive.

Those from the Deaf and Hard of Hearing (DHH) focus group felt that some of the *Connectivity* workshops were challenging for sign language interpreters to translate, particularly when those translators were men, since “just having a male in the room changed the vibe.” Overlapping dialogue also made it difficult for interpreters to keep up, and “knowing how to slow down and take turns” would have made the event more accessible for DHH attendees. One interviewee from the DHH group explained that going to RIT events “is always hard because it’s not always fair, we’re not always at the same level, [and] we don’t always have equal access to those events.” Several interviewees from the DHH group agreed that incidental learning takes place that not only keeps them from fully understanding what takes place, but consequently blocks them in some ways from the information shared in locations without interpreters in mixed hearing and non-hearing groups. Incidental learning is learning that occurs (or doesn’t occur) in informal settings like the bathroom, or when getting coffee, in places where an interpreter is not available to capture the conversation. One person explained: “Incidental learning is so important for us. It doesn’t matter if we have interpreters all the time. We don’t hear things happening in

the natural environment. We can talk with each other.” Generally speaking, however, people from the DHH group “felt comfortable” attending the RIT events.

The African American, Latin American, and Native American (AALANA) focus group interviewees expressed that having a women of color *Connectivity* luncheon offered a “safe environment that you could speak on what you felt” because as “women of color we have a lot of similarities and similar struggles.” Everyone in attendance at the AALANA focus group felt comfortable attending the women of color events. However, the broader events were “less inviting.” One interviewee expressed that she would censor her sharing at select heterogeneous events, explaining that “the political implications” of sharing openly in a large group could have consequences, whereas “in the women of color group there are no ramifications of saying something [honest and vulnerable].” Interviewees expressed that they might feel more comfortable sharing in a heterogeneous group if there was the ability to “see people regularly and build connections and relationships with people [to build a more] safe and trusting environment.”

When examining the *Connectivity* Series events through the frames described by Bolman and Deal (Figure 1, Table 5), the evaluation team found that the majority of all events fulfilled Human Resources goals (149 or 92%). Aligned with the Human Resources frame, interviewees indicated that they learned tools to combat discrimination, adopted strategies for advancement in academia, and built solidarity with like-minded community members. For example, one interviewee described a seminar which led her to feel “not alone as a female in academia” and another was reassured that her “experiences are normal” with discrimination in academia, finding solidarity in the shared experience. They also shared that partaking in discussions with like minds helped one interviewee to “think outside the box” about how to succeed in academia.

Also, interviewees enjoyed learning about refining their strategies for teaching and writing which will help them with tenure and promotion. The Human Resources frame themes centered on building women's individual agency and skills to succeed and combat discrimination.

Figure 1: All Events by Bolman and Deal Frame (Year 2 – Year 6)

Table 5: Outcomes of *Connectivity* Series, by Bolman and Deal Frame (Year 2 – Year 6)

Frame	Outcomes
Human resource	Learn tools to combat discrimination and strategies for succeeding, help with tenure and promotion, build solidarity
Structural	Series made it easy to come to multiple events; highlighted need for more leadership attendance and more women in leadership
Political	Desire for leaders to use social capital to support the work, especially by encouraging and valuing participation more broadly
Symbolic	Build awareness of discrimination, encourage equity and inclusion, build community, women's professional development is valued

One hundred of the events fulfilled Symbolic goals (62%); interviewees indicated that the *Connectivity* Series was meaningful symbolically because it built awareness about discrimination, encouraged equity and inclusion, and built community. These are outcomes that reflect steps toward institutional transformation. At the same time, attendees wished for a more intersectional orientation, wanting to learn more about “race and gender and how they overlap with each other” through *Connectivity* workshops. The *Connectivity* Series events “started an awareness of what may be happening to us as women faculty or female staff” and “started the conversation” about the need for change. Other interviewees explained that the workshops provided an “opportunity to spread awareness” about how to support women faculty with professional development. This awareness was foundational to encouraging equity and inclusion by “encouraging people to be better human beings,” and strengthening community as reflected by the comments: “it’s nice to be in a mass of us” and “I definitely made new friends and new connections through the series.” These symbolic outcomes, as described by Bolman and Deal (2017), have structural implications for change, since strengthening community and the collective awareness of discrimination is reflective of the institutional culture.

Connectivity Series events least commonly fit into the Structural and Political frames. A total of 70 events fulfilled Structural goals (43%). Related to the Structural frame, interviewees offered suggestions to increase the structural impact of the *Connectivity* workshops, suggesting that leaders (formal and informal) take charge of and be accountable for making equitable change. This commitment to equity would ideally be demonstrated by increased leader attendance at *Connectivity* events. Interviewees also wanted to see more women in leadership positions in their departments. At the same time, the structure of the series itself helped interviewees feel “encouraged to attend a lot of workshops...to make more of a difference here”

and “self-analyze ...what I’m doing better as a teacher.” The structural frame lends itself to institutional transformation, and while a number of events fulfilled these goals, more structural transformation was desired.

There were 73 events (45%) in the Political frame. The Political frame relates to aligning systems of power and resources to shape political frameworks that impact the representation and advancement of women. The comments that most spoke to the Political frame were reflective of participants wanting to see leaders using their social capital to champion change by making sure leadership is diverse in its representation, by encouraging their colleagues’ attendance at *Connectivity* events (both interested parties and potentially skeptical parties), and by attending the events themselves. An interviewee shared that while there is interest in *Connectivity* “from the bottom...hopefully the university leadership becomes more engaged and active saying ‘we are serious about this and this is how we want to be.’” One individual expressed: “It’s the people who aren’t going, probably, who need to go the most” and another expressed that it’s clear that “the same people attend and put on the events,” which can limit the building of new relationships. This presents a political problem that leaders can help solve since they can have an impact on how well attended and received the events are, and their encouragement for and participation in the events has implications for advancing institutional change.

Looking across each type of evaluation data, key overarching themes emerge around the influence of the *Connectivity* Series. At the individual level, focus group participants and interviewees discussed the impact of building interpersonal relationships through the series, leading them to feel less isolated. Participants also talked about the value of learning new tools and strategies for advancement in their fields. These individual impacts reflect improved relationships, connectedness, and support – all key factors that contribute to women’s success in

academic workplaces. At the institutional change level, the themes of increased awareness of equity issues, expanded networks, and sense of community among participants were most common. Additionally, there was a clear theme across participants of a shared desire to see more buy-in and participation from institutional and departmental leadership in the series and in equity issues campus-wide, indicating a desire for increased institutional and structural change. This particular impact can have the effect of spurring bottom-up change in addition to the typical top-down change process of most institutions. Using elements from both the Kotter (2002) and Lewin (1947) organizational change models, reducing barriers helps an organization move through the transformation process. The *Connectivity Series* reduces barriers by offering opportunities for participants (including campus leaders) to develop new skills and to become visibly involved.

Structuring the series and its evaluation around the Bolman and Deal frames allowed for an examination and understanding of both of these individual effects as well as the larger, institutional effects of the *Connectivity Series*.

Conclusion

The *Connectivity Series* at RIT is supporting the goals of the AdvanceRIT project by removing barriers to resources that support career success and creating new interventions and resources for women faculty in STEM fields. The *Connectivity Series* is an intervention that was created to address several opportunity areas within RIT for women faculty. It became an intervention that reduced organizational barriers to transformation through faculty, staff, and leader skill development and through the shifting of norms to align with the project goals. Due to its wide level of success, the *Connectivity Series* has been institutionalized at RIT through

internal funding. Workshops continue to focus on skill development and shifting the RIT organization towards a more inclusive campus environment.

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