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Effective Learning Interventions for Developing ECQs

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INTRODUCTION

The best leadership development programs are those that enhance management capacity and organizational performance while maximizing the return on investment for the Federal government. Leadership is challenging in any environment, but leading in the Federal Government comes with unique challenges that require leaders to react with speed and competence in high-pressure situations. The learning and development function within organizations must respond by moving leadership development beyond the classroom into actual crisis situations, through training activities such as action learning, simulations, service learning and multi-source feedback.

The U.S. Office of Personnel Management (OPM), in partnership with researchers from George Mason University (GMU), conducted a thorough review of leadership development efforts to create this report, ***Effective Learning Interventions for Developing Executive Core Qualifications (ECQs)*** This report has four specific objectives:

- To help agencies make strategic data driven training decisions;
- To promote increased efficiencies by informing the design, development and implementation of new leadership development programs with theoretically-grounded research;
- To increase training innovation, rigor, and effectiveness within Federal leadership development programs; and
- To provide a helpful data-driven approach for evaluating the potential effectiveness of Commercial off the Shelf (COTS) development solutions offered by external vendors.

Study Methodology

A GMU team of researchers – Dr. Steven Zaccaro, Rachel Feyre, and Samantha Holland – reviewed empirical and conceptual studies in the literature, ranging from randomized experiments to summaries of anecdotes from case studies. They also reviewed studies where researchers provided their own summaries of the existing literature.[1] Recommendations were derived from an integrated consideration of the research.

Key Themes and Conclusions

The following key themes and trends emerged consistently throughout the research and benchmarking interviews of Federal agencies:

- Effective leadership development emerges from a combination of multiple developmental experiences, and
- Leadership development is unique to the particular leader and should not rest on the use of a single approach for all. For example, work experiences that present challenges and learning to some leaders are more effective when paired with feedback, especially for interpersonal and business leadership skill development.[2] Likewise, action learning projects become more effective for some leaders' growth when they include facilitators or coaches, and are paired with opportunities for self-reflection.[3]

To grow as leaders, individuals should assess their needs and use the development recommendations in this report to establish a comprehensive leader development plan that integrates a range of interventions most suited to them and to a specific competency. Practitioners can use this report to inform the learning interventions in their leadership and executive development programs. For a fully comprehensive view of leadership development options, use this report in addition to resources available on OPM's Training and Development Policy Wiki (https://www.opm.gov/wiki/training/Index.aspx). You should also consult with your agency Chief Learning Officer and Training and Development office for additional development guidance, options and strategies.

DEFINITIONS

Throughout this report, the researchers address five classes of leadership development interventions and learning activities specific to each. The five classes are:

Instructor-led (e.g., degree programs, courses, seminars, workshops, case presentations and discussions, distance learning, passive computer-based instruction)
This type of training is facilitated by an instructor either online or in a classroom setting. Instructor-led training allows for learners and instructors or facilitators to interact and discuss the training material, either individually or in a group setting.

Experiential activities (e.g., on-the-job training, action learning, service learning, team projects, simulations and games, scenario planning)
Experiential activities are developmental tasks that occur in immersive environments and allow learners to naturally generate questions. These questions are optimally answered at the time they are generated. The key to experiential activities is hands-on learning and conversation; either virtually or in face-to-face interaction.

Developmental relationships (e.g., coaching, mentoring, networking, supervisor support, peer-to-peer learning partners, shadowing)
Developmental relationships are either formal or informal and involve one individual taking an active interest in and initiating actions to advance another's development. They are the kinds of relationships that serve as key sources of assessment, challenge, and support.

Assessments and feedback (e.g., multisource and 360-degree feedback, self-assessments, assessment tools, developmental assessment centers)
Multisource feedback is a process of acquiring performance feedback from multiple rates and sources, including a leader's superiors, peers, and subordinates. Leaders also provide self-ratings. Feedback intensive programs include not only assessments of performance, but of leader personality, skills, and other dispositions. Such feedback is intended to foster greater self-understanding and facilitate the construction of effective individualized development plans.

Self-development (e.g. individual development plans, self-guided learning activities)
Self-development is any self-initiated and proactive learning process where learners are responsible for (a) assessing their own strengths and developmental needs, (b) designing and

completing their instructional curriculum, and (c) evaluating their own learning progress. (e.g., individualized development plans, self-guided learning activities).

The research suggests the most effective leadership development programs will likely be those that combine and integrate learning activities from one or more of these classes. Definitions of the specific learning activities used throughout this report are listed in the Appendix.

LEADERSHIP DEVELOPMENT MATRIX

This report includes a Leadership Development Matrix, a "quick reference guide" of the summaries within the report. This shortened version of the report lists a range of leadership development activities that best develop each of the twenty-two (22) core leadership competencies and six (6) fundamental competencies within the Executive Core Qualifications (ECQs). Individuals can use this matrix in day-to-day operations and discussions with current and aspiring leaders. For detailed research on why these particular interventions were recommended please review the report in its entirety.

Leadership Development Matrix: *Quick Reference Guide of Recommended Developmental Activities for each ECQ Competency*

ECQ Competency	***Recommended Leadership Development Activities***
ECQ 1: Leading Change: *Creativity and Innovation*	• Engage in *action learning* projects with leaders from different functional areas within the organization. Projects should focus on development of new ideas, policies, and other activities that require creative and innovative thinking. *Action learning* projects should include *feedback* mechanisms, and *mentoring*. • Engage in a *developmental assignment* that entails such activities as brainstorming and refining new policies, leading a policy launch effort, assessing implications of new technologies on organizational processes, or turning around a failing policy or process. Such assignments should be paired with *feedback mechanisms* and *mentoring*.
ECQ 1: Leading Change: *External Awareness*	• Engage in *scenario planning* exercises involving future organizational scenarios designed in consideration of key stakeholders, numerous external trends (political, economic, societal, technological, legal, environmental, and industry), and the uncertainties of the future. • Utilize a *mentor* who can serve as a source of additional information regarding the industry and its external strategic environment. • Work on a *developmental assignment* or *job rotation* outside the organization, or one that requires the leader to work with others from different organizations to set up a new policy or strategic direction.
ECQ 1: Leading Change: *Flexibility*	• Engage in *job rotations* where the leader experiences different work environments and learns new perspectives. • Engage in multiple *developmental assignments* that differ significantly in the challenges they present to the leader. Each assignment should require the leader to work with new and different frames of reference. • Work with leadership and peer *coaches* who promote considerably different ways and perspectives for understanding work problems. • Participate in leader development *workshops* that utilize complex work *simulations* featuring *active learning*, significant variety in experienced problems, and structured *feedback* and guidance.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 1: Leading Change: *Resilience*	• Engage in *structured training programs* that emphasize stress management tools and stressor-coping mechanisms. • Work with a *coach* to identify and develop solutions to stress-inducing work problems. Such *coaching* should be paired with *multi-source feedback.*
ECQ 1: Leading Change: *Strategic Thinking*	• Engage in *developmental assignments* that involve setting new directions, working on strategic formulation projects, and leading change. • Participate in a variety of strategically-oriented *experiential* exercises, including (a) *active learning* projects that have a strategic focus; (b) group dialogue of strategic *case discussions*, and (c) strategic business *games* and *simulations*. • Attend *courses* and *workshops* that provide models of strategic thinking, and pair these models with *experiential* exercises. • Utilize a *mentor* who can guide the leader's cognitive development of more strategic frames of reference.
ECQ 1: Leading Change: *Vision*	• Engage in *developmental assignments* that entail long term planning and development of new directions for the organization. • Participate in team-based *workshops* involving *action learning* projects that create cross-functional exposure and include exercises aimed at future trends of the organization. • Engage in *scenario planning* with team members to create a shared vision towards the future.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 2: Leading People: *Conflict Management*	• Engage in *developmental assignments* that entail working in situations likely to be significantly conflict-laden (e.g., dealing with a problem employee, serving as a negotiator or mediator, working with people from different cultures, and leading groups with diverse members). • Participate in and/or lead an *action learning* project with teams composed of members from different functional areas and with different perspectives • Work with a leadership *coach* who helps identify leadership problem areas that can contribute to poor conflict management. Construct a leader development plan to address these areas. *Coaching* should be combined with conflict management *workshops*, and *development/action learning* assignments. • Attend *workshops* that provide insight into conflict management styles and conflict resolution strategies. Such *workshops* should include not only lectures, but discussions around conflict management case studies and role play exercises.
ECQ 2: Leading People: *Leveraging Diversity*	• Engage in *developmental assignments* that entail working with groups containing members from diverse backgrounds and perspectives. Such assignments should be paired with *feedback* providers. • Engage in *service learning* assignments paired with feedback and coaching. • Participate in extended *workshops* that utilize *behavioral modeling*, role plays, *cultural assimilators*, and reflective discussions to foster greater appreciation for diversity. Such course work should be paired with *mentoring* and *action learning projects*.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 2: Leading People: ***Developing Others***	• Participate in a *coaching* relationship. The coaching should focus specifically on: skills in providing *feedback* and opportunities to subordinates; active listening techniques; and the use of open-ended questions to encourage communication. • Engage in a *mentoring* assignment – such assignments should be paired with peer and leadership *coaching*. • Attend *workshops* that focus on active listening, providing *feedback*, and helping subordinates construct individual development plans. • Engage in a formal *self-development* intervention that requires diagnosis of self-learning needs, construction of a self-learning curriculum, and evaluation of learning gains. Practicing this intervention can foster general skills for developing others. • Solicit *multisource feedback* from supervisors, peers, and subordinates – focusing on skills in developing others, including: active listening; providing feedback; and assigning developmental activities. Such *feedback* should be paired with *coaching*.
ECQ 2:Leading People: ***Team Building***	• Lead a team-based *action learning* project. The *action-learning* project should also include *feedback* mechanisms, and *mentoring*. • Participate in *coaching* with *multi-source feedback*. These *coaching* exercises should focus on team management strategies, such as the use of team charters and team process facilitation, to motivate team members and increase team commitment. Such *coaching* should also be paired with *multi-source feedback* to increase the self-awareness of the team building skills that need improvement. • Engage as a team lead in *challenge exercises*, adventure learning exercises, and team-based *simulations*. *Feedback* should be included to ensure that leaders grasp the purpose of these exercises and so their team's sense of cohesion will continue when they return to the organization.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 3: Results Driven: *Accountability*	• Establish a *coaching* relationship that emphasizes the importance of concrete goal establishment and responsibility for goal completion. Such *coaching* can also focus on delegation as well as time and project management skills. *Coaching* should include *multisource feedback* that focuses on these skills. • Establish peer *coaching* relationships to foster a climate of shared responsibility and accountability. Peer *coaches* create a higher level of self-awareness and reflection as well as a greater awareness of others' responsibilities and needs. • Take *workshops* and *courses* on time/project management skills, and performance management strategies. These *workshops* should include *role play* exercises that utilize *scenarios* displaying low accountability by peers and subordinates.
ECQ 3: Results Driven: *Customer Service*	• Engage in an *action learning* project that focuses on improving internal and external customer service systems and processes. This project should be paired with *self-reflection* or *personal growth programs* to foster greater self-awareness • Take part in a *coaching* program that centers on growing self-awareness and on improving recognition and balance of client needs against the leader's own needs and constraints. This *coaching* should include guidance on how to set attainable goals towards the final product and on developing the leader's planning techniques • Take an interpersonal skills workshop that includes *role playing* exercises reflecting both typical and non-typical internal customer service situations.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 3: Results Driven: ***Decisiveness***	• Participate in *workshops* and *courses* that offer *simulation-based* training exercises requiring multiple complex decisions. Such exercises need to reflect novel and ill-defined situations leaders are likely to encounter on the job. Offer opportunities to work through appropriate solutions. Opportunities should be interactive in nature and accompanied by *feedback* and guidance. • Engage in an *action learning* project that focuses on solving multiple problems within a constrained time period. This will serve to foster decision-making under time pressure, and enhance comfort with decision-making in situations where information is limited and a comprehensive evaluation of the problem scenario is not feasible. These projects can be paired with *coaching* and job assignments to reinforce learning gains. • Take on a *developmental assignment* that requires a solution to an ill-defined problem or one that has been outstanding in the organization for some time. Such assignments should be paired with *feedback* from supervisors, mentors, coaches, and/or other learning partners.
ECQ 3: Results Driven: ***Entrepreneurship***	• Participate in *workshops* or *courses* that focus on entrepreneurship. The requirements of the class or workshop should include the leader's completion of a formal business plan for a new venture and its presentation to others. This program should be paired with catalytic *coaching*, where coaches/instructors encourage leaders to engage in more entrepreneurial thinking. • Engage in an *action learning* project that includes the exploration of new ventures and opportunities. Such projects should be paired with *coaching* and *mentoring*. • Engage in a *developmental assignment* that entails such activities as exploring, designing, and developing new ventures (e.g., policy, service-related tools and products). Such assignments should also be coupled with *coaching*, or *mentoring* for expert support and advice.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 3: Results Driven: *Problem Solving*	• Engage in problem-solving learning experiences with coworkers. The intent is to help each other better understand problem approaches and solutions. • Participate in a *workshop* where external *case studies* are presented and discussed. These *case studies* should provide examples of the kinds of problems a leader is expected to confront in their leadership environment. • Participate in a *simulation* exercise where leaders have the opportunity to work through realistic problem scenarios. • Engage in an *action learning* project that entails working on existing problems within the sponsoring organization. Such projects should be paired with *feedback* mechanisms and *coaching* opportunities. • Engage in *developmental assignments* that entail opportunities to work on problems that are ill defined or reoccurring within the organization. Such assignments should be paired with *feedback* mechanisms and *coaching* opportunities.
ECQ 3: Results Driven: *Technical Credibility*	• Take *formal courses* or *workshops* on specific topics and areas enabling leaders to develop technical competence required for their jobs. Such *courses* should be followed by job responsibilities or assignments enabling learners to practice the acquired skills. • Develop a *mentoring* relationship with a senior (i.e., more technically expert) employee in the organization. The *mentor* should encourage open communication and be available to answer technical questions. • Engage in *job rotations* that entail work tasks utilizing targeted technical skills.
ECQ 4: Business Acumen: • ***Financial Management*** • ***Human Capital Management*** • ***Technology Management***	• Take *formal courses* or *workshops* on specific topics and areas relating to the leaders' needs to develop business acumen. Such *courses* should be followed by job assignments that allow acquired skills to be practiced. • Develop a *mentoring* relationship with a senior (i.e., more technically expert) employee in your organization. The *mentor* should encourage open communication and be available to answer technical questions. • Engage in *job rotations* with work tasks enabling the development of skills in financial management, human capital management, or technology management.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 5: Building Coalitions: *Partnering*	• Engage in *action learning* projects with a team of leaders from different functional and organizational areas. The project should involve extensive collaboration. • Engage in job assignments that entail working on cross-functional and cross-boundary teams. • Develop a *mentoring* relationship with a more established and senior leader in the organization. The *mentor* should provide access to a wider professional network, especially to "brokers" who can facilitate connections to other professional networks. The organization should help match *mentors* to the appropriate mentees. • Join and participate in professional societies and organizations that foster *networking* opportunities among its members.
ECQ 5: Building Coalitions: *Political Savvy*	• Take a *workshop* on organizational political dynamics that includes *case studies* of successful political climate navigation. The *course* should involve interactive and *role play* exercises and *simulations* in which leaders need to evaluate political acceptance of decisions in several decision contexts. • Attend a *workshop* or forum of senior employees who share common experiences working within the organization. The sessions should provide opportunities for interaction and engagement between speakers and attendees. • Develop a *mentoring* relationship with a more senior employee in the organization, who can provide insight into organizational political dynamics. • Engage in *developmental assignments* that require navigation of different organizational areas and levels of management to reach successful solutions. Such assignments should be paired with *mentoring* and/or *coaching*.

ECQ Competency	*Recommended Leadership Development Activities*
ECQ 5: Building Coalitions: ***Influencing/ Negotiating***	• Engage in *simulations* in which leaders are required to influence another person's opinion or to negotiate a position. This *simulation* should be paired with *feedback* that evaluates the leader's performance and provides recommendations for improved strategies. • Engage in a *role-play* activity in which opinion influence or negotiation is a key component. This exercise should be paired with instructive *feedback* and facilitation. • Take a *workshop* that presents case studies of negotiation situations and learning on the negotiation strategies applied in the case studies. The *workshop* should provide a direct comparison between different cases to highlight underlying principles of influencing and negotiation. • Engage in *developmental assignments* in which leaders must influence peers working on the same project or peers from whom they need to engender support. Ideally this exercise should be paired with *coaching* to help leaders uncover successful strategies.
Fundamental competency: ***Interpersonal Skills***	• Take *workshops* that include *behavior modeling* or *role-play* exercises. *Modeling* exercises should target specific interpersonal skills with modeled skill displays and sustained practice with *feedback*. *Role plays* should be paired with *feedback* by trained facilitators. *Workshops* should be paired with *coaching* to extend the lessons learned to the actual behavior on the job. • Complete *multisource* or 360-degree assessments that evaluate interpersonal skills. Work with a *coach* to develop a learning plan to address identified gaps.

ECQ Competency	*Recommended Leadership Development Activities*
Fundamental competency: ***Oral Communication***	• Attend a *workshop* that covers techniques and strategies for effective communication. This introduction should be paired with interactive activities such as *behavior modeling* or leadership *simulations* allowing leaders to apply learning from the workshop into practical action. • Take on a *developmental assignment* offering the opportunity to present or communicate to areas of the organization with whom the leader normally does not interact. • Enter a *coaching* relationship focused on the development of oral communication skills. This relationship should be founded on a skills audit and assessment, or in *multisource feedback* results, informing a development plan to which the relationship aligns.
Fundamental competency: ***Written Communication***	• Participate in a writing *workshop, or a course* on written communication skills. This *learning* should be interactive in nature and allow for group discussion as well as direct instructor feedback on participant writing samples • Make use of learning partners and peer *coaches* to solicit *feedback* on written communications.
Fundamental competency: ***Integrity/Honesty***	• Develop a *mentor* relationship with a senior employee early on in the leader's career, in which the senior employee serves as a *role mode*l for ethical conduct. This *mentoring* relationship should be paired with a formalized organizational 'code of ethics' that clearly reinforces a climate of integrity. • Attend a *workshop* that provides heuristical decision-making tools on which leaders may rely in addressing challenging ethical situations in the workplace. These decision-making tools will particularly help guide appropriate action in times of uncertainty. • Take a *course* or *workshop* that includes *case studies* involving poor ethical conduct. The discussion should examine the ethical failures involved in the case studies, potential causes for the failure, and solutions, or prevention or mitigation strategies that could have been applied. • Engage in a *service learning* project with an organization to enhance contact with and understanding of the community in which the organization exists.

ECQ Competency	*Recommended Leadership Development Activities*
Fundamental competency: ***Continual Learning***	• Engage in *self-development* skills training. This training should be two-fold: identification of skills development needs, and ways to effectively set developmental goals for those skills. This activity may be conducted through *multi-source feedback* – including both a skills evaluation as well as a formative evaluation – so the leader understands why specific developmental activities will be effective. Organizational support is also important to encourage these self-developmental activities. • Participate in an assessment (e.g. 360, personality) and in a *coaching* relationship that can facilitate *self-development* efforts. *Multi-source feedback* from supervisors, peers, and subordinates can be used as part of *coaching* to identify self-learning objectives.
Fundamental competency: ***Public Service Motivation***	• Engage in *service learning* activities, where leaders apply skills learned in the classroom to actual problems in the community. • Engage in *behavioral modeling* paired with *mentoring*. The *behavioral modeling* should involve the active demonstration of the organization's public service values. Leaders should use *mentors* for support and as experts who embody and model organizational values.

RESEARCH SUMMARIES OF EFFECTIVE LEARNING INTERVENTIONS BY ECQ COMPETENCY*

ECQ 1: LEADING CHANGE: *CREATIVITY/INNOVATION*

Definition:

Develops new insights into situations; questions conventional approaches; encourages new ideas and innovations; designs and implements new or cutting edge programs/processes.

Summary of Literature:

Research shows interventions that successfully promote growth in creative thinking and innovation skills should include specific forms of *action learning*, paired with *feedback* and *mentoring*. Action learning teams are effective in helping learners address complex organizational problems and develop innovative solutions.[24] To optimize learning effectiveness, different functional stakeholders should comprise these teams to ensure a range of diverse perspectives.[25] One important study concludes action learning assignments should: (a) involve teams composed of leaders from different functional areas within organizations; (b) focus on emerging problems requiring innovative solutions; and (c) be paired with feedback from peers, coaches, and/or mentors.[26]

Specific forms of individual *developmental assignments* have also been associated with growth in creative thinking and innovation skills. One study indicates the following are particularly helpful in fostering effective Leading Change development: (1) assignments providing leaders responsibility for finalizing and implementing new products, and (2) assignments enabling leaders to serve in a variety of project roles related to organizational change (e.g., technical liaisons for new product implementation, participants on "technology monitoring panels" that assess implications of new organizational technology, members of strategy planning sessions).[27] Another study establishes a correlation between the degree of challenge in developmental assignments (e.g., based upon higher-level and responsibilities, and tasks that involve product launches or personnel changes) correlated to individual growth in the development of change creation skills.[28]

According to several researchers, the effectiveness of action learning and developmental assignments as tools for developing innovation skills strongly depends upon several paired interventions, including feedback, coaching, and mentoring. For example, one study found that a company's learning climate, which included feedback and a formal mentoring program, explained 20-26% of the variance in different measures of innovation.[29] A review of the relevant literature identified feedback as an important driver of several

* All definitions of ECQ competencies in the following section are taken from the United States Office of Personnel Management's *Guide to Senior Executive Service Qualifications* (2010, Appendix A).

innovative thinking processes, including idea development, revision, and refinement.[30] In contrast, other researchers argue developmental assignments with very high levels of challenge may actually diminish returns by impairing learning; however, these researchers also found the provision of feedback mitigated such diminishing returns.[31] Such feedback should be provided by not only project facilitators but also coaches and mentors.[32] Other research especially emphasizes the importance of feedback in action learning, suggesting that without feedback, "action learning would be no different from a normal day on the job."[33]

Developmental Recommendations

- Engage in action learning projects with leaders from different functional areas within the organization. Projects should focus on development of new ideas, policies, and other activities that require creative and innovative thinking. Action learning projects should include feedback mechanisms and mentoring.
- Engage in a developmental assignment that entails such activities as brainstorming and refining new policies, leading a policy launch effort, assessing implications of new technologies on organizational processes, or turning around a failing policy or process. Such assignments should be paired with feedback mechanisms and mentoring.

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ECQ 1: LEADING CHANGE: *EXTERNAL AWARENESS*

Definition:

Understands and keeps up-to-date on local, national, and international policies and trends that affect the organization and shape stakeholders' views; is aware of the organization's impact on the external environment.

Summary of Literature:

Research suggests interventions that successfully promote external awareness include specific forms of *scenario planning*, paired with *mentoring* and cross-boundary *developmental assignments*. For example, one study found scenario planning was related to changed thinking and improved decision-making about the future .[34] Additionally, these learning interventions provided value in helping learners grow external awareness skills through concentration and analysis of emerging external forces that impact their organizations.[35] Accordingly, Pierre Wack, described by some as the "undisputed 'father' of modern scenario planning,"[36] noted that in generating scenarios, "scanning the business environment and crystallizing the findings in a set of scenarios means dealing with a world outside the corporation."[37]

Researchers have found that this approach in scenario planning encouraged leaders to shift thinking from inside the organization to what might happen in the future outside the organization.[38] One study reviewed various outcomes of scenario planning and found the processes prompting executives to "think the unthinkable" in making decisions[39] contributed directly to their organizations' ability to prepare for and adapt to the outside environment.[40] Researchers indicate scenario planning interventions facilitate the development of external awareness skills by encouraging leaders to change their perspectives and thinking by holistically viewing their organization, customers, and market as a part of a system.[41]

Research has also identified mentoring as an effective tool to increase a leader's external awareness. Mentors provide leaders a valuable means to obtain information about the public and government sectors, as well to provide both expert advice and perspective into strategic dynamics occurring in these sectors.[42] One study examined the interactions between mentors and their protégés, and found that mentors frequently discussed strategic knowledge acquisition as well as the mentor's background in relation to the problem.[43] Mentors help increase protégées' awareness of evolving environmental trends, and help protégées anticipate and ascertain the impact and dynamics of these trends.[44]

Developmental assignments that entail working across organizational boundaries can also foster growth in a leader's external awareness.[45] A job rotation to another organization is an example of such an assignment.

Developmental Recommendations

- Engage in scenario planning exercises involving future organizational scenarios designed in consideration of key stakeholders, numerous external trends (political, economic, societal, technological, legal, environmental, and industry), and the uncertainties of the future.
- Utilize a mentor who can serve as a source of additional information regarding the public/government sector and its external strategic environment.
- Work on a developmental assignment or job rotation that brings you to another organization, or requires you to work with others from different organizations to set up a new policy or strategic direction.

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ECQ 1: LEADING CHANGE: *FLEXIBILITY*

Definition:

Is open to change and new information; rapidly adapts to new information, changing conditions, or unexpected obstacles.

Summary of Literature:

Research has established a number of key developmental interventions for the significant enhancement of a leader's flexibility and adaptability, including the following: *job rotations*; *developmental assignments*; *self-development*; *coaching*; and the use of problem-solving *simulations* that present participants with a significant variety of challenges to solve. These interventions each help promote a leader's tendency and ability to consider multiple perspectives and to apply a greater breadth in behavioral strategies.[46] In particular, job rotations can foster greater awareness of different perspectives if the jobs differ significantly with regard to the leadership challenges posed by each job. In one survey of business leaders, 31% of the leaders reported they had developed adaptability and flexibility after participating in a job rotation.[47]

Researchers also identified developmental assignments as valuable techniques for developing flexibility in a leader. Such assignments can be effective in developing adaptability skills when they help leaders to recognize limitations in their current ways of thinking, and to consider new information and perspectives.[48] Examples of such developmental assignments include: those that facilitate novel changes, such as starting something new in the organization; managing reorganization; and fixing problems from a predecessor.[49] Again, the effectiveness of these assignments strongly relates to the variety of experiences provided to the participating leaders (i.e., the quantity and variety of a leader's developmental assignments positively correlated with subsequent degrees of displayed adaptability and flexibility).[50]

Properly-structured self-development can also foster growth in leader flexibility. One study found that managers who reported a number of different experiences in their self-learning contracts (similar to an Individual Development Plan (IDP)) exhibited greater flexibility in adaptability exercises.[51] The key is the degree of experiential variety in their self-development portfolio.[52]

Research has also identified coaching as an effective strategy to develop flexibility. Specifically, coaching helps leaders gain greater self-awareness and explore a wider range of perspectives.[53] One study found that, over a three-month period, executive coaching increased self-reported managerial flexibility.[54] Another argued that in order for leaders to become flexible, they needed to "develop a repertoire of responses to deal with changing circumstances" and become more comfortable with change; this developmental need frequently is identified as a coaching objective.[55] Researchers have also found that a peer coaching experience enabled leaders to, in the words of one participant, examine "different

scenarios and different ways of approaching the management of staff performance" – a key to displaying flexibility skills.[56]

The use of work simulations with certain features – such as active or error management training, adaptive guidance, and experiential variety – has also been linked to development of adaptive thinking skills and flexibility.[57] Active learning entails providing participants with a degree of control over the pace and direction of their learning. Error management training can be useful in developing adaptive expertise, especially when paired with: (a) strategies for reducing negative emotions from experiencing errors; (b) significant variety in the nature of the problem scenarios experiences by participants; and (c) different forms of feedback and guidance that help participants navigate and learn from complex simulations.[58]

Developmental Recommendations

- Engage in job rotations where the leader experiences different work environments and learns new perspectives.
- Engage in multiple developmental assignments that differ significantly in the challenges they present to the leader. Each assignment should require the leader to work with new and different frames of reference.
- Work with leadership and peer coaches who promote a considerable number of different ways and perspectives for understanding work problems.
- Participate in leader development workshops that utilize complex work simulations featuring active learning, significant variety in experienced problems, and structured feedback and guidance.

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ECQ 1: LEADING CHANGE: *RESILIENCE*

Definition:

Deals effectively with pressure; remains optimistic and persistent, even under adversity. Recovers quickly from setbacks.

Summary of Literature:

Research suggests *formal workshops* that provide stress management tools, along with *leadership coaching*, can facilitate growth in leader resilience. For example, one study tested the utility of a work-based resilience training workshop conducted for 22 hours over 11 weeks.[59] Topics included relaxation and stress reduction techniques, skills in building social support, mindfulness, cognitive defusion ("changing [one's] relationship with thoughts"[60]), and stress-targeting physical activity. Learning activities entailed presentations and discussions, experiential activities, structured self-learning and practice exercises, and self-reflection periods. Using a pre-post design, researchers in this study found participants experienced significant improvements in stress levels, positive emotions, environmental mastery, and personal growth. Other researchers analyzed the effectiveness of a similar 35-hour structured resilience skills training program by evaluating government executives randomly assigned to training and control groups; these researchers found the training groups exhibited higher post-training scores in resilience, self-esteem, interpersonal relations, and locus of control – with improvements on most of these measures maintained 10 weeks after training.[61] Additional studies have also provided evidence for the utility of similarly-structured training programs.[62]

Researchers have also found that targeted coaching can increase leader resilience. One study contrasted executives who received coaching with a control group, and found that coaching resulted in higher resilience scores, less-reported depression, and higher perceptions of workplace well-being.[63] Personal life coaching was also found to lead to reduced anxiety, as well as enhanced hardiness and personal insight, in a sample of professionals and managers.[64] These findings were supported by other researchers who found that coaching provided leaders with greater skills for "acting in a balanced way."[65] Coaching, paired with 360-degree feedback, can especially help leaders identify areas of improvement for specific skills.[66]

Developmental Recommendations

- Engage in structured training programs that emphasize stress management tools and stressor-coping mechanisms.
- Work with a coach to identify and develop solutions to stress-inducing work problems. Such coaching should be paired with multi-source feedback.

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ECQ 1: LEADING CHANGE: *STRATEGIC THINKING*

Definition:

Formulates objectives and priorities, and implements plans consistent with long-term interests of the organization in a global environment. Capitalizes on opportunities and manages risks.

Summary of Literature:

Research suggests the following developmental interventions can help grow leader strategic thinking skills: *developmental assignments* and *action learning* projects; *scenario planning*; strategic business *simulations*; and *mentoring*. Such interventions should require leaders to establish new directions and participate in different kinds of long term planning projects, both as an individual leader and as part of a strategy team.[67] In one study, a group of interviewed healthcare CEOs indicated the following experiences facilitated growth in strategic thinking skills: "strategic planning"; "spearheading a major growth initiative"; and "dealing with a threat to organizational survival."[68] Other researchers have found that leaders who participated in assignments with high degrees of challenge (e.g., involving "working across boundaries," "unfamiliar responsibilities," and "high levels of responsibilities") was reported significant improvement in strategic leadership skills.[69] Accumulated work experiences(the diversity of positions that have resulted in a variety of skill sets), including serving as a lead strategist on large scale projects, has also been associated with displayed competency in strategic thinking.[70]

Action learning projects with a strategic thinking focus have also been linked to growth in individual strategic thinking skills. For example, participants in such projects have reported positive gains within the context of an MBA capstone course where a CEO brings to the class a strategic problem, and participants work in teams work to find solutions.[71] Also, leaders from two major corporations who participated in strategy-focused active learning projects reported: greater commitment to strategic assignments; greater confidence in leading change; and pursuit of more-strategic projects.[72] Action learning projects, entailing scenario planning with longer time horizons, can particularly foster strategic thinking.[73]

Several studies have touted the value of strategy-focused business simulations, in the context of formal workshops, as a tool for growing strategic thinking skills. One such study investigated the merits of three different business games on a set of managerial skills, and found “decision making under ambiguity” and “information processing” to be the competencies most improved by these exercises.[74] In another study, managers ranked “Building Strategic Performance” was second out of 11 most highly-improved leadership competency areas after participating in a 28-week formal course that included strategic thinking as part of the curriculum; similarly, supervisors participating in this course ranked the same competency as their most-improved competency area.[75] A number of other

researchers have offered evidence for the value of strategically-oriented case studies and business simulations to develop strategic thinking.[76]

Strategic simulations should be paired with mentoring to encourage post-intervention skill retention and strengthening.[77] Strategically-oriented mentors can also help protégées develop the more-complex frames of reference necessary for strategic thinking.[78]

Developmental Recommendations

- Engage in developmental assignments that involve setting new directions, working on strategic formulation projects, and leading change.
- Participate in a variety of strategically-oriented experiential exercises, including: (a) active learning projects that have a strategic focus; (b) group dialogue of strategic case discussions; and (c) strategic business games and simulations.
- Attend courses and workshops that provide models of strategic thinking, and pair these models with experiential exercises.
- Utilize a mentor who can guide the leader's cognitive development of more strategic frames of reference.

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ECQ 1: LEADING CHANGE: *VISION*

Definition:

Takes a long-term view and builds a shared vision with others; acts as a catalyst for organizational change. Influences others to translate vision into action.

Summary of Literature:

Visioning skills involve strategic perspective, external awareness, creativity, and cognitive flexibility. Leaders can grow visioning skills by engaging in developmental assignments that involve strategic planning and a long term focus, and by working on action learning projects with the same features. A recent review of the action learning literature reported the results of two unpublished dissertations[79] that supported the use of action learning assignments to grow elements of visionary leadership.[80] Research has also suggested the value of scenario planning, with its emphasis on the contemplation of alternative futures, on the enhancement of leader visioning skills.[81]

Developmental Recommendations

- Engage in developmental assignments that entail long term planning and the development of new directions for your organization.
- Participate in team-based workshops, involving action learning projects that create cross-functional exposure and that include exercises aimed at identifying and preparing for future trends of the organization.
- Engage in scenario planning with team members to create a shared vision towards the future.

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ECQ 2: LEADING PEOPLE: *CONFLICT MANAGEMENT*

Definition:

Encourages creative tension and differences of opinions. Anticipates and takes steps to prevent counter-productive confrontations. Manages and resolves conflicts and disagreements in a constructive manner.

Summary of Literature:

Research supports the use of *developmental assignments*, *coaching*, *action learning projects*, and *formal workshops* to develop conflict management skills. Development assignments can be useful for learning conflict management in many ways, including: dealing with a problem employee; serving as a negotiator or mediator; working with people from different cultures; and leading groups with diverse members.[82] One study found the degree of developmental challenge in assignments such as "managing diversity" correlated to a significant increase in a leader's interpersonal skills, which facilitated conflict management; however, the researchers in this study also found such assignments need to be paired with feedback to facilitate transfer.[83] Such feedback can come from supervisors, peers, subordinates, or other supportive learning partners such as mentors and coaches.

Studies have also supported the use of coaching to further the development of conflict management skills, or other interpersonal skills that would also improve conflict management.[84] Coaches can use assessment tools to identify the degree to which leaders require development in conflict management, help leaders establish a leader development plan to facilitate skill growth, and coach them through the conduct of the plan.[85] One study found nursing managers experienced significant improvements in their conflict management skills after using such a design and a coaching model specifically tailored to conflict management.[86] Other researchers have observed the success of programs, combining coaching with additional interventions such as workshops and experiential learning exercises, for generating significant improvements in individuals' conflict management and resolution skills.[87]

Team-based action learning projects can foster growth in conflict management skills because they require members to collaborate and reach a consensus around different perspectives and ideas.[88] Indeed, several studies have supported the utility of such projects to develop these skills.[89] Workshops are also an established intervention used to develop conflict management skills – one study reported leadership improvement from a workshop that focused on perceptual distortions as a source of conflict in work-related interpersonal activities; this workshop included lectures, case studies, and role play exercises.[90]

Developmental Recommendations

- Engage in developmental assignments involving situations likely to involve conflict (e.g., dealing with a problem employee, serving as a negotiator or mediator, working with people from different cultures, and leading groups with diverse members).
- Participate in and/or lead an action learning project with teams composed of members from different functional areas and with different perspectives.
- Work with a leadership coach who helps identify leadership problem areas that can contribute to poor conflict management. Construct a leader development plan to address these areas. Coaching should be combined with conflict management workshops, and development/action learning assignments.
- Attend workshops that provide insight into conflict management styles and conflict resolution strategies. Such workshops should include not only lectures, but discussions around conflict management case studies and role play exercises.

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ECQ 2: LEADING PEOPLE: *LEVERAGING DIVERSITY*

Definition:

Fosters an inclusive workplace where diversity and individual differences are valued and leveraged to achieve the vision and mission of the organization.

Summary of Literature:

Research supports the use of several experiential learning activities, including *developmental assignments* and *service learning,* to increase the leader's ability to foster an inclusive workplace. One type of developmental assignment, dealing *with diversity*, where the leader directs people from different cultures, genders, or racial or ethnic backgrounds is especially appropriate for the development of this skill.[91] By being placed in charge of groups and/or projects composed of people from varying backgrounds, "leaders are challenged to move beyond their own beliefs and perspectives to understand personal, business, and workplace issues from perspectives that may differ greatly from, and sometimes even conflict with their own."[92] Such assignments need to be paired with feedback from supervisors, peers, and subordinates to be fully effective.[93] Also, reflective practice has been identified as a particularly important element of such learning activities.[94]

Service Learning, or "a form of experiential learning in which learners are asked to participate in learning activities connected to community service,"[95] has also been used to develop greater awareness of diversity in potential leaders.[96] One supporting study described a service learning intervention paired with 360-degree feedback and individual coaching.[97] Participants worked on a team project advised by a team coach. The researchers found this type of activity promoted several individual learning outcomes relating to the useful leveraging of diversity, including increased awareness of values such as respect and tolerance, a greater tendency to listen "more consciously than before to people from other cultural backgrounds," as well as an "enhanced ability to understand things from other's point of view."[98]

Research has also supported the use of *behavioral modeling* and *cultural assimilators* in developing a leader's ability to leverage the individual differences in the organization. One study examining the use of a combination of these techniques found that participants learned more about cross-cultural experiences, performed better in the role-play assessment, and had better reactions towards the training than those who received only one or none of these training approaches.[99] Another study summarized an extensive formal instructional program that included a module on diversity, paired with mentoring and action learning assignments; after completion of the program, participants reported "gaining a greater appreciation for diversity – especially diversity of personality, work types, and personal style."[100] Other researchers have verified the success of similar formal instructional programs that produced comparable growth in diversity values.[101] These studies suggest that formal instruction and workshops can be successful in developing

leaders who can display inclusive leadership across different groups and cultures when these learning solutions: (a) teach diversity values, including providing examples and role plays of leadership that effectively reflects such values, and (b) pair such instruction with mentoring and action learning.

Developmental Recommendations

- Engage in developmental assignments that include working with groups containing members from diverse backgrounds and perspectives. Such assignments should be paired with feedback providers.
- Engage in service learning assignments paired with feedback and coaching.
- Participate in extended workshops that utilize behavioral modeling, role plays, cultural assimilators, and reflective discussions to foster greater appreciation for diversity. Such course work should be paired with mentoring and action learning projects.

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ECQ 2: LEADING PEOPLE: *DEVELOPING OTHERS*

Definition:

Develops the ability of others to perform and contribute to the organization by providing ongoing feedback and by providing opportunities to learn through formal and informal methods.

Summary of Literature:

Research has supported the use of *coaching* (especially peer-coaching), *mentoring*, *structured self-development*, and *multisource feedback* to increase a leader's ability to develop others. After engaging in peer coaching sessions, one leader stated he "was able to improve the quality of feedback that I give my subordinates on their project work through asking open ended questions, actively listening, paraphrasing and initiating action on their concerns,"[102] and the research establishes the essential value of these cited behaviors in the effective development of others. In another case study, a middle level manager who received coaching, focused on developing others, subsequently improved his success in encouraging subordinates to learn while performing their job tasks, instead of requiring his full direction.[103] Self-coaching paired with observations, and journaling may also be effective for increasing a leader's ability to develop others.[104] Indeed, in a study of managers from the government of British Columbia, "developing others" emerged as an important theme for self-coaching.[105]

Similarly, research has documented the value of mentoring (paired with peer coaching) as a successful intervention to grow skills for developing others – both for leaders to receiving mentoring on the improvement of their skills and to provide mentoring to others. For example, several research studies have documented the effectiveness of mentoring training and peer coaching interventions to improve the listening and questioning skills that contribute to developing others.[106] One such study examined a British government program where individuals participated in mentoring skills workshops before providing mentoring to their protégées; researchers concluded the workshops enhanced the skills of the mentors to develop others (including active listening and provision of feedback) and also positively impacted the learning of the protégées who received improved mentoring.[107]

Additionally, self-development interventions can indirectly enhance skills for developing others, and research identifies the following best practices for such interventions: diagnosis of learning needs and objectives; construction an effective self-learning curriculum tailored to identified needs and objectives; and the monitoring and evaluation of learning gains.[108]

Moreover, research has also identified the benefits of multisource feedback for the enhancement of the leader's ability to develop others.[109]

Developmental Recommendations

- Participate in a coaching relationship. The coaching should focus specifically on: skills in providing feedback and opportunities to subordinates; active listening techniques; and the use of open-ended questions to encourage communication.
- Engage in a mentoring assignment – such assignments should be paired with peer and leadership coaching.
- Attend workshops that focus on active listening, providing feedback and helping subordinates construct personal development plans.
- Engage in a formal self-development intervention that entails diagnosis of self-learning needs, construction of a self-learning curriculum, and evaluation of learning gains. Solicit multisource feedback from supervisors, peers, and subordinates, focusing on skills in developing others, including: active listening; providing feedback; and assigning developmental activities. Such feedback should be paired with coaching.

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ECQ 2: LEADING PEOPLE: *TEAM BUILDING*

Definition:

Inspires and fosters team commitment, spirit, pride, and trust. Facilitates cooperation, and motivates team members to accomplish group goals.

Summary of Literature:

Research supports the use of *action learning* projects in developing team building skills.[110] Because such projects require cooperation and accomplishment of group goals, leaders can gain team building skills and practice by adopting leadership roles within them. Researchers in one study found that leaders who engaged in action learning projects reported learning more about team building – with novice leaders exhibiting greater gains than experienced leaders, according to evaluation data 8 and 12 months after the projects were completed.[111] Other researchers have reported similar results on the effectiveness of action learning to foster team building skills.[112]

Action learning in the form of *outdoor challenge courses* (e.g., rock-climbing, rope courses) has also demonstrated utility in developing team building skills, including those relating to increasing team spirit, trust, and harmony.[113] A study that compared experiential outdoor team building interventions with either more-traditional team building interventions, or no interventions at all, found that individuals who completed outdoor experiential programs reported higher mean scores on a number of scales related to team effectiveness than those who completed traditional team building interventions; both interventions produced better scores than the no-intervention condition.[114]

Research also supports simulations as a useful tool in fostering team building skills. An example of this development method involves team-based simulation exercises where executives are firefighters for a day.[115] Using this method, leaders had numerous experiences, such as being lowered from a high-rise building, being confined to small spaces, and participating in search and rescue exercises. These exercises helped foster trust, teamwork, and confidence among team members. A novice leader's team building skills in such exercises can be fostered when (a) he or she is put in to a leadership role, and/or (b) such exercises provide specific team building tactics to participants.

Research has also provided supporting evidence for the inclusion of *coaching* and *multi-source feedback* in team-building development programs.[116] For example, leaders who participated in a peer coaching program reported subsequent improvements in "leading and facilitating teams."[117] Other studies have reported similar findings, with one showing that leaders improved their effectiveness in conferring more-frequently with their teams and guiding members towards new opportunities or tasks, after participating in a leadership development workshop and coaching session.[118] Additionally, coaching is often complemented by multisource feedback, focusing learning on the perceptions of team building skills by subordinates and others.[119] One research study found that leaders

became more interested in building effective teams and increasing the trust of their members, after receiving feedback from their coworkers, supervisors, and peers.[120]

Developmental Recommendations

- Lead a team-based action learning project. The action-learning project should also include feedback mechanisms, and mentoring.
- Participate in coaching with multi-source feedback. These coaching exercises should focus on team management strategies such as the use of team charters and team process facilitation, to motivate team members and increase team commitment. Such coaching should also be paired with multi-source feedback to increase the self-awareness of the team building skills that need improvement.
- Engage as a leader of teams in challenge courses, adventure learning exercises, and team-based simulations. Feedback should be included to ensure leaders grasp the purpose of these exercises, and their team's sense of cohesion will continue when they return to the organization.

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ECQ 3: RESULTS DRIVEN: *ACCOUNTABILITY*

Definition:

Holds self and others accountable for measurable high-quality, timely, and cost-effective results. Determines objectives, sets priorities, and delegates work. Accepts responsibility for mistakes. Complies with established control systems and rules.

Summary of Literature:

Research has suggested *coaching* interventions targeting accountability can be effective in fostering accountability skills, especially when coaching: (a) is peer-to-peer, and (b) facilitates increased self-awareness and heightened responsibility toward co-workers in the organization. The utility of coaching is further enhanced with multi-source feedback. For example, a study of peer coaching and 360-feedback systems within a large organization found these interventions "led to what some participants referred to as 'accountability.'" Meaning the coaching process created a safe space where participants could accept responsibility.[121]

Goals-based coaching can particularly help foster accountability as such coaching requires participants to set goals and determine how to meet those goals. When such coaching was provided to Army leaders, researchers found participants' "level of engagement or buy-in to coaching" correlated to gains in a number of skills related to accountability, such as mission planning, time management, and use of daily progress reports.[122]

Workshops that specifically target accountability skills (e.g., project management skills, time management, and addressing performance problems) can also foster growth in this competency.[123] Such workshops should include role play exercises presenting participants with various scenarios requiring them to address the accountability issues and behavior of individuals.

Developmental Recommendations

- Establish a coaching relationship that emphasizes the importance of concrete goal setting and responsibility for goal completion. Such coaching can also focus on delegation as well as time and project management skills. Coaching should include multisource feedback that focuses on these skills.
- Establish peer-coaching relationships to foster a climate of shared responsibility and accountability. Peer coaches create a higher level of self-awareness and reflection as well as a greater awareness of others' responsibilities and needs.
- Take workshops and courses on time management/project management skills, and performance management strategies. These workshops should include role play exercises that utilize scenarios displaying low accountability by peers and subordinates.

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ECQ 3: RESULTS DRIVEN: *CUSTOMER SERVICE*

Definition:

Anticipates and meets the needs of both internal and external customers. Delivers high-quality products and services; is committed to continuous improvement

Summary of Literature:

Research has identified a number of useful training strategies for the development of different components of customer service acumen in employees. Skill components of client and customer service include self-awareness.[124] Higher self-awareness fosters more realistic assessments of how one's behavior may be perceived by customers. Competent customer service also requires an ability to determine necessary actions and resources needed to satisfy customer requirements.[125] Emotion regulation skills also contribute to effective customer service.[126] Finally, this competency also fundamentally rests on the value of service to others. These skill (and value) components can be developed through *action learning paired with reflection*[127], *coaching*[128], and *role play exercises*.[129]

Several studies have documented the effectiveness of certain action learning projects – focused on improving customer delivery systems – in foster a heightened service orientation.[130] For example, researchers have examined the use of action learning projects in the Department of Commerce that targeted the customer service component of the ECQs.[131] Participants in the program and their supervisors reported "significant development of their chosen leadership competencies."[132] A case study of action learning projects by nursing teams in a hospital found the projects "helped to identify points within a patient's journey through care where collaboration could improve services and the outcomes for patients."[133] Leader involvement in an action learning assignment has also been found to be associated with higher rankings of subsequent effectiveness by customers.[134]

Effective coaching can increase self-awareness, active listening, and other "people management" skills that contribute to effective customer service. In one study of a two-week coaching program that focused on such skills, 94% of executives reported improved performance in the handling of their internal customers; as noted by one of the participants: "My coach has helped me improve my customer relationships. I'm now able to better keep my customers aware of conflicting priorities and more effectively manage expectations."[135]

As part of a leader development program for Fujitsu Services, one researcher described the successful use of role play exercises that were "designed after extensive interviews with managers around the different types of performance management situations they are confronted with, e.g. (demanding customers, variable performance, high performers with an attitude, evading accountability, not stepping up to responsibilities)."[136] Role play exercises coupled with feedback and coaching can foster development of customer service

skills. Use of such exercises with service learning programs can strengthen these skills further.

Developmental Recommendations

- Engage in an action learning project that focuses on improving internal and external customer service systems and processes. This project should be paired with self-reflection to foster greater self-awareness
- Take part in a coaching program that centers on growing self-awareness, and on improving recognition and balance of client needs against the leader's own needs and constraints. This coaching should include guidance on how to set attainable goals towards the final product and on developing the leader's planning techniques.
- Take an interpersonal skills workshop that includes role playing exercises reflecting both typical and atypical internal customer service situations.

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ECQ 3: RESULTS DRIVEN: *DECISIVENESS*

Definition:

Makes well-informed, effective, and timely decisions, even when data are limited or solutions produce unpleasant consequences; perceives the impact and implications of decisions.

Summary of Literature:

Research demonstrates the particular effectiveness of a number of training tactics for developing decisiveness, including *simulations*, *action learning* projects, and *developmental assignments*. These approaches each provide employees with simulated situations enabling them to practice and consequently improve their confidence and speed in decision-making relevant to their actual jobs. For example, the Wildland Fire Leadership Development Program provides participants with five courses on decision-making, based upon simulations created as a result of the real-life disastrous response to the July 6, 1994 South Canyon wildfire near Glenwood Springs, Colorado, where numerous firefighters lost their lives.[137] Courses use experiential learning, including "tactical decision simulations" and "role and computer simulation of fire combat".[138] In these simulations, participants confront relevant firefighting situations they will likely encounter in their work, and they consider and learn successful responses informed by case studies from the South Canyon incident. Participants also engage in "staff rides," involving facilitated visits to historical fire combat sites; these staff rides are intended to:

> Offer analysis of firefighting strategies and decisions in several fire zones. The purpose, in the program's words, is to "put participants in the shoes of the decision makers on a historical incident in order to learn for the future." These staff rides are intended to build the "decision-making skills of leaders" by analyzing "fireground decisions made by leaders of the past in concert with an on-scene study of the actual terrain." While walking the terrain, participants evaluate what decisions they would have taken had they been in the shoes of the incident commander.[139]

The course work, decision simulations, and accompanying staff rides are intended to provide knowledge and practice of decision making processes particularly in stressful circumstances. Through such activities, participants develop more confident, systematic responses in parallel real-life contexts – an effect the authors assert will extend directly to typical business environments as well.

In more traditional contexts, action learning exercises have also been shown to develop decisiveness.[140] Such exercises should provide participants with opportunities to make a series of critical decisions in situations that are ambiguous in terms of presenting obvious choices. Action learning also needs to be appropriately facilitated and coached to be effective, and should be paired with self-reflection exercises.[141] In an example of action

learning in the United States Department of Agriculture where one learning objective was "increased skills related to decisiveness," participants completed individual action assignments, but met regularly as a group to discuss assignments and lessons learned; follow-up interviews and assessments with participants reflected participant growth in several leadership competencies, including decisiveness.[142]

Decision-making skills can also emerge from developmental assignments that place individuals in novel and ill-defined contexts filled with "opportunities to work on ill-defined or recurring problems, or to make decisions that require broad input from across the organization or decisions that groups have avoided addressing."[143] Two examples of such developmental assignments are to: (a) "represent your group on a task force that prioritizes projects across groups," and (b) "investigate and make decisions about whether to continue providing resources to a project that continues to underperform."[144] Researchers have offered evidence for the utility of such assignments on business skills such as decision-making on resource allocations and business operations, but only when feedback was made available.[145] Thus, developmental assignments for the growth of decision-making skills should include clear feedback mechanisms from supervisors, mentors, coaches, and/or other learning partners.

Developmental Recommendations

- Participate in workshops and courses that offer simulation-based training exercises requiring multiple complex decisions. Such exercises need to reflect novel and ill-defined situations the leader is likely to encounter on the job, accompanied by opportunities to work through appropriate solutions. These exercises should be interactive in nature and accompanied by feedback and guidance.
- Engage in an action learning project that focuses on solving multiple problems within a constrained time period. This will serve to foster decision-making under time pressure, and enhance comfort with decision-making in situations where information is limited and a comprehensive evaluation of the problem scenario is not feasible. These projects can be paired with coaching and job assignments to reinforce learning gains.
- Take on a developmental assignment that requires a solution to an ill-defined problem or one that has been outstanding in the organization for some time. Such assignments should be paired with feedback from supervisors, mentors, coaches, and/or other learning partners.

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ECQ 3: RESULTS DRIVEN: *ENTREPRENEURSHIP*

Definition:

Identifies opportunities to develop and market new products and services within or outside of the organization. Is willing to take risks; initiates actions that involve a deliberate risk to achieve a recognized benefit or advantage.

Summary of Literature:

Research has suggested that entrepreneurship skills can be enhanced through *action learning projects* that entail the development of plans for new ventures or businesses.[146] This developmental activity is most effective when linked with coursework on leadership and entrepreneurial principles.[147] For example:

> In an action-learning project designed to explore new venture opportunities, there would be classroom sessions about entrepreneurial or new venture leadership capabilities, feedback to participants about their own capabilities in this regard, and then project recommendations which identify the specific leadership challenges of the venture and suggested actions.[148]

In a study of such a program for 21 entrepreneurs, participants took a 14-week course that included modules on entrepreneurship and the development of a new business plan. Analyses of data collected from participants indicated that "experiential learning activities developed the entrepreneurial competencies of the women and, in turn, increased their self-confidence."[149] In another study, researchers made similar findings on the value of a course-based approach to developing entrepreneurship, although the specific course did not contain an action learning project. Instead, the intensive 3-week course was "designed to encourage students to prepare themselves for entrepreneurship and to provide instruction in the basic entrepreneurial activities"; it also included interviews and discussions with "prominent entrepreneurs."[150] The researchers in this study found that 79% of 892 course participants reported enhancement to their thinking or planning to start a new business; of the 129 students who actually started a business within a short time following the course, "[76%] rated the course as having a 'large' or 'very large' effect upon their decisions to start their ventures, while only 4.3% felt the course had little or no effect."[151] The researchers concluded, "the entrepreneurship course played an important role in the individual decisions to embark on new ventures."[152]

Research has also found additional enhancement of entrepreneurial abilities from the pairing of *coaching* with classes. For example, in a five-week course for entrepreneurs designed to enable them to become more customer-focused and aggressive in a competitive market, participants were required to complete a formal business plan for a new venture and present it to a group of individuals.[153] This assignment was paired with

"catalytic coaching," where coaches enable leaders to encourage more entrepreneurial thinking within their functions. This type of coaching:

> Involved pushing managers to move from an iterative focus to a platform focus. Most managers, when asked to think about new business opportunities, tend to start close to home with iterative, relatively small changes to products or services. It takes a push from a coach who aggressively challenges this "close to home" mentality, typically found in the ideation phase.[154]

The results of this program indicated that "catalytic coaching and the business planning process were the two most important educational tools for the development of skills for new business opportunities.[155]

Developmental assignments may also play a role in developing entrepreneurial skills. Researchers have suggested several change creation assignments that reflect entrepreneurship, such as "launching a new product, project, or system" to grow entrepreneurship skills.[156] For Federal government employees, such assignments can entail the design of new policies and services. The assignments may also involve the development of new opportunities, as well as service-related tools and products linked to an agency's mission.

Developmental Recommendations

- Participate in workshops or courses that focus on entrepreneurship. The requirements of the class or workshop should include the leader's completion of a formal business plan for a new venture and its presentation to others. This program should be paired with catalytic coaching, where coaches/instructors encourage leaders to engage in more entrepreneurial thinking.
- Engage in an action learning project that includes the exploration of new ventures and opportunities. Such projects should be paired with coaching and mentoring.
- Engage in a developmental assignment that entails such activities as exploring, designing, and developing new ventures (e.g., policy and service-related tools and products). Such assignments should also be coupled with coaching, or mentoring for expert support and advice.

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ECQ 3: RESULTS DRIVEN: *PROBLEM SOLVING*

Definition:

Identifies and analyzes problems; weighs relevance and accuracy of information; generates and evaluates alternative solutions; makes recommendations.

Summary of Literature:

Research establishes the effectiveness of a number of specific approaches for the development of an employee's problem-solving competency, including the following: *action learning (AL); formal workshop training* with *case studies*, *simulations*, and *developmental assignments*; and *individualized coaching*. Action learning projects can be particularly effective in developing and practicing problem-solving skills.[157] Researchers have noted that "AL is an ideal problem-solving process when there is no known solution, or when the solution is uncertain but the problem goals are clear and specific."[158] By working though problems in teams, leaders learn how others use problem-solving processes, and researchers emphasize the importance of including a coach or facilitator in this process. Specifically, researches note that "without an AL team coach to challenge 'the way we have always worked," team members are likely to slip into old and familiar problem-solving habits without duly considering whether a new or different approach might work better."[159] A number of other research and case studies support the use of action learning to grow problem-solving skills.[160]

Additionally, researchers have identified the success of workshops and seminars, applying case study reasoning and instruction, in fostering problem-solving skills particularly relevant to addressing the ill-defined and novel problems frequently confronted by leaders.[161] In one controlled experiment, case discussions were found to facilitate gains in certain problem solving processes.[162] In another study that used an alternate case-based approach, an online forum for learners to share problems from their past experiences both enhanced learners' understanding of their own problems and aided others in their problem-solving processes.[163]

Similarly, simulations have also been cited as a strategy to improve leader problem-solving skills.[164] Effective leadership simulations offer problem scenarios applicable to participants' actual work problems, and enable participants to test and practice different problem-solving strategies. Simulations have also been found to help in the significant development of problem-based mental models useful for problem-solving. A mental model is an explanation of someone's thought process about how something works in the real world. [165]

Developmental assignments also provide opportunities for the enhancement of problem-solving skills, with the most effective assignments involving "ill-defined or recurring problems."[166] These assignments force leaders to hone their problem-solving skills by generating solutions in situations where they cannot rely on pre-existing or routine

answers. To optimize this learning approach, researchers recommend pairing a variety of coaching strategies, including: coaching, centered on general problem-solving skills[167]; reframing[168]; structured thinking[169]; mind mapping[170]; and feedback.[171]

Developmental Recommendations

- Engage in problem-solving learning experiences with co-workers. The intent is to help each other better understand problem approaches and solutions.
- Participate in a workshop where external case studies are presented and discussed. These case studies should provide examples of the kinds of problems a leader is expected to confront in their leadership environment.
- Participate in a simulation exercise where leaders have the opportunity to work through realistic problem scenarios.
- Engage in an action learning project that entails working on existing problems within the sponsoring organization. Such projects should be paired with feedback mechanisms and coaching opportunities.
- Engage in developmental assignments that entail opportunities to work on problems that are ill-defined or recurring within the organization. Such assignments should be paired with feedback mechanisms and coaching opportunities.

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ECQ 3: RESULTS DRIVEN: *TECHNICAL CREDIBILITY*

Definition:

Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise.

Summary of Literature:

The specialized and knowledge-based nature of technical credibility suggests that *formal course work*, followed by "*stamping-in assignments*," may be the most appropriate strategies for development of technical credibility. Such course work can be in the form of formal courses or workshops. The technical skills taught in these settings should be practiced through on-the-job assignments specifically structured to provide opportunities for leaders to "stamp in" or fully integrate newly-acquired skills into their work flow.

Learners may also foster technical skills through mentoring relationships with more senior individuals, considered experts in their particular technical fields.[172] Such mentors can serve as technical role models, and be available for technical questions from junior leaders. A recent qualitative study illustrated how mentors can help protégés learn about new technological advances in a particular field.[173] Another study found that use of a mentor helped novice school leaders gain knowledge about "technical issues such as school policies, procedures, and programs."[174]

Job rotations can also be instrumental for enhancing technical knowledge, providing participants exposure to new technical skills and opportunities to practice those skills. In one study of the job rotation histories of 255 employees of a pharmaceutical company, participants reported the rotations improved 17 of 19 assessed skills in "administrative, technical, and business categories."[175]

Developmental Recommendations

- Take formal courses or workshops on specific topics and areas enabling leaders to develop technical competence required for their job. Such courses should be followed by job responsibilities or assignments enabling leaders to practice the acquired skills.
- Develop a mentoring relationship with a senior (i.e., more technically expert) employee in your organization. Your mentor should encourage open communication and be available to answer technical questions.
- Engage in job rotations that entail work tasks utilizing targeted technical skills.

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ECQ 4: BUSINESS ACUMEN: *FINANCIAL MANAGEMENT, HUMAN CAPITAL MANAGEMENT, TECHNOLOGY MANAGEMENT*

Definitions:

Financial Management – Understands the organization's financial processes. Prepares, justifies, and administers the program budget. Oversees procurement and contracting to achieve desired results. Monitors expenditures and uses cost-benefit thinking to set priorities.

Human Capital Management – Builds and manages the workforce based on organizational goals, budget considerations, and staffing needs. Ensures that employees are appropriately recruited, selected, appraised, and rewarded; takes action to address performance problems. Manages a multi-sector workforce and a variety of work situations.

Technology Management – Keeps up-to-date on technological developments. Makes effective use of technology to achieve results. Ensures access to and security of technology systems.

Summary of Literature:

Similar to technical credibility, the competencies that make up business acumen – *financial management*, *human capital management*, and *technology management* – are all grounded in specialized knowledge and expertise. Therefore, the development of these specialized competencies occurs mostly through the same developmental activities as those listed under "Technical Credibility" section of this report: (a) formal coursework in specialized areas of financial management, human capital management, and technology management; (b) mentoring from more senior "subject matter experts"; and (c) job rotations into assignments entailing either financial management, human capital management, or technology management. Please see studies summarized under "Technical Credibility" (pg. 49) for research supporting these developmental interventions.

Developmental Recommendations

- Take formal courses or workshops on specific topics and areas relating to the leader's needs to develop business acumen. Such courses should be followed by job assignments that allow acquired skills to be practiced.
- Develop a mentoring relationship with a senior (i.e., more technically expert) employee in your organization. Your mentor should encourage open communication and be available to answer technical questions.
- Engage in job rotations with work tasks enabling the development of skills in financial management, human capital management, or technology management.

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ECQ 5: BUILDING COALITIONS: *PARTNERING*

Definition:

Develops networks and builds alliances, collaborates across boundaries to build strategic relationships and achieve common goals.

Summary of Literature:

Research suggests that partnering and networking skills can be developed from *action learning, cross-functional developmental assignments,* and *mentoring*. Action learning projects bring together multiple leaders from different functional areas.[176] Research has shown that such projects become effective ways of creating work-related networks. In one study, interviews with senior executive participants who worked on an action learning project indicated that opportunities to network were one of the major outcomes of the project.[177] A study of 22 public managers found that confidence from participating in an action learning program "was seen as a key factor in new leading managers breaking out of their comfortable working circles and creating or expanding networks."[178] In another study, researchers found a program that included action learning "was most effective in promoting behaviors around networking, performance meritocracy and commitment[179] (in this study "performance meritocracy" referred to such behaviors as "proactively addressing performance concerns and developing top performers" (p. 524))[180]. Similar findings of the effects of action learning on networking have been reported in other research studies.[181]

Mentoring provides an opportunity to foster partnering, especially when mentors act as "brokers,"[182] linking junior leaders to other professional contacts.[183] Mentors provide bridges to other networks, and also help protégée develop skills to navigate new professional networks.[184] For example, in one study of mentoring, a protégé noted "[my mentor provided] great access to upper level employees. It was a great networking experience."[185] A meta-analysis of mentoring effects clearly demonstrated that the support provided by mentors – including coaching and sponsoring – facilitated several partnering behaviors and outcomes.[186] Researchers emphasize the critical importance of identifying mentors who are similar to the protégé on key work-related qualities because "mentors who are similar to their protégés in terms of educational background, departmental affiliation, or functional area may be better able to provide appropriate technical guidance, help the protégé *engage in networking activities*, and recommend the protégé for learning opportunities, all of which typify instrumental support."[187]

Developmental Recommendations

- Engage in action learning projects with a team of leaders from different functional and organizational areas. The project should involve extensive collaboration.
- Engage in job assignments that entail working on cross-functional and cross-boundary teams.

- Develop a mentoring relationship with a more established and senior leader in your organization. The mentor should provide access to a wider professional network, especially to "brokers" who can facilitate connections to other professional networks. The organization should help match mentors to the appropriate mentees.
- Join and participate in professional societies and organizations that foster networking opportunities among its members.

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ECQ 5: BUILDING COALITIONS: *POLITICAL SAVVY*

Definition:

Identifies the internal and external politics that impact the work of the organization. Perceives organizational and political reality and acts accordingly.

Summary of Literature:

The leadership development literature suggests a number of successful approaches for the development of political savvy, including the following: interactive *role play exercises; case study analysis*; *mentoring*; and *development assignments*. Role-playing can effectively help participants take different perspectives and practice politically-effective interactions.[188] Case studies, highlighting political dynamics of historical events, can be very helpful to develop political awareness.[189] In one study – using a quasi-experimental design assessment – researchers found a politically-oriented, case-based course significantly increased participants' skills in analyzing feasibility and impact of different political decisions.[190]

Mentors can also help in building the political savvy of protégés by sharing a wider perspective an organization's political environment.[191] One researcher recently noted that "an important component of mentoring support is helping the protégé learn to navigate the political and strategic landscape of the organization."[192] Workshops that bring together such mentors to share their perspectives of political dynamics can also be effective.[193] The process of mentoring can help protégés gain a broader understanding of organizational systems and the actors/issues that need to be considered in making decisions, and researchers have reported such learning gains in interviews with mentors and protégés; for example, in one study, a protégé noted "the program . . . gave me an opportunity to seek out and become much more informed about things that were going on within (the company) that were not in my immediate line of business."[194]

Developmental assignments are also an effective way to grow political savvy, particularly when an assignment entails navigation of different political dynamics and working with politically-powerful individuals. Such assignments include "presenting a proposal to top management," "performing a corporate staff job," "serving on a cross-functional team," "dealing with a business crisis," and "facilitating the development of a new vision or mission statement." [195] These types of assignments often require learners to have awareness of and to apply skills to navigate significant political risks; therefore, these assignments provide opportunities for the development and practice of political savvy. Such assignments should be complemented with learning partners and coaches who can help mitigate risks, remove disincentives for learners to take these assignments and provide effective support and feedback.[196]

Developmental Recommendations

- Take a workshop on organizational political dynamics that includes case studies of successful political climate navigation. This course should involve interactive and role play exercises and simulations in which you need to evaluate political acceptance of decisions in several decision contexts.
- Attend a workshop or forum of senior employees who share common experiences working within the organization. The sessions should provide opportunities for interaction and engagement between speakers and attendees.
- Develop a mentoring relationship with a more senior employee in your organization, who can provide insight into organizational political dynamics.
- Engage in developmental assignments that require navigation of different organizational areas and levels of management to reach successful solutions. Such assignments should be paired with mentoring and/or coaching.

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ECQ 5: BUILDING COALITIONS: *INFLUENCING/NEGOTIATING*

Definition:

Persuades others; builds consensus through give and take; gains cooperation from others to obtain information and accomplish goals.

Summary of Literature:

Some of the most common techniques for developing influencing and negotiation skills include: *business simulations*; *role play*; *case study based workshops*; and *developmental assignments*. Business simulations and role plays that involve actual negotiations among participants can provide opportunities to learn and practice different influence strategies in different contexts.[197] Researchers have noted by participating in such simulations, "students are accumulating a set of negotiation experiences that they might be able to draw upon later."[198] In one experiment, researchers concluded an experiential training protocol, involving active practice negotiations, had a greater impact than more passive didactic training; participants in the experiential training condition developed conceptual frames about negotiation that more closely represented experienced negotiators.[199]

Case discussions that help learners transfer lessons from specific cases to actual negotiation contexts have also been shown to be successful in developing influencing and negotiation skills. Researchers have argued that such case studies should involve comparisons of different negotiation examples reflecting similar underlying principles – i.e., "analogical learning."[200] The awareness and understanding that comes from such comparisons then transfers more readily to other negotiation problems. Indeed, in one study, people who had the opportunity to compare case studies performed better at transferring principles to actual negotiation situations than those who did not compare case studies.[201] Other studies have also provided evidence supporting this approach to negotiation skills training.[202]

Developmental assignments and coaching often significantly help foster influencing and negotiation competencies. Particularly helpful assignments or projects include those that (a) require an employee to work across different areas within an organization, and/or (b) involve influencing others' opinions (at the learner's level).[203] Such assignments should be accompanied by coaching or other forms of developmental relationships that focus on emotion awareness/management [204] and "global constructive thinking."[205]

Developmental Recommendations

- Engage in simulations in which you are required to influence another person's opinion or to negotiate a position. This simulation should be paired with feedback that evaluates the leader's performance and provides recommendations for improved strategies.

- Engage in a role-play activity in which opinion influence or negotiation is a key component. This exercise should be paired with instructive feedback and facilitation.
- Take a workshop that presents case studies of negotiation situations and learning on the negotiation strategies applied in the case studies. The workshop should provide a direct comparison between different cases to highlight underlying principles of influencing and negotiation.
- Engage in developmental assignments in which leaders must influence peers working on the same project or peers from whom they need to engender support. Ideally this exercise should be paired with coaching to help leaders uncover successful strategies.

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FUNDAMENTAL COMPETENCIES: *INTERPERSONAL SKILLS*

Definition:

Treats others with courtesy, sensitivity, and respect. Considers and responds appropriately to the needs and feelings of different people in different situations.

Summary of Literature:

Research has suggested workshops that include behavioral modeling and role play, and are paired with multisource feedback and coaching, can be effective in developing interpersonal skills.[206] In behavior modeling exercises, employees observe successful interpersonal interactions by models, and are given opportunities to practice observed behaviors and receive feedback from observers.[207] Role play exercises entail two or more participants enacting particular roles in carefully structured interpersonal scenarios.[208] An experimental study of the effects of behavioral modeling with 62 middle-level managers found that managers receiving a modeling intervention displayed greater interpersonal skills four months after training than managers who did not receive such training.[209] A meta-analysis of research on behavioral modeling confirmed its utility for growing interpersonal skills.[210] Research on developing transformational leadership, which includes interpersonal skills, has demonstrated the effectiveness of role in fostering such skills.[211]

Several studies have found that leader interpersonal skills can also be developed through combinations of multisource feedback and coaching.[212] One such study of the effectiveness of a 12-session, six-month executive coaching program within a large multinational corporation found almost all of the participants reported "coaching . . . refined their people skills by increasing their insight into how colleagues perceive their actions and decisions."[213] Coaches who observed behavioral changes commented that participants "became more open communicator[s], better able to listen and ask probing questions to ascertain others' concerns, rather than to arbitrarily make unilateral decisions."[214]

Developmental Recommendations

- Take workshops that include behavior modeling or role-play exercises. Modeling exercises should target specific interpersonal skills with modeled skill displays and sustained practice with feedback. Role plays should be paired with feedback by trained facilitators. Workshops should be paired with coaching to extend the lessons learned to the actual behavior on the job.
- Complete multisource or 360-degree assessments that evaluate interpersonal skills. Work with a coach to develop a learning plan to address identified gaps.

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FUNDAMENTAL COMPETENCIES: *WRITTEN COMMUNICATION*

Definition:

Writes in a clear, concise, organized, and convincing manner for the intended audience.

Summary of Literature:

Research suggests that formal workshops and peer coaching can be used to enhance leaders' writing skills. One study found the most effective workshop format to be one emphasizing in-class peer and instructor review of participant writing samples as the basis for instruction.[215] This interactive structure allows for specialized feedback to each participant so that they can see how more generalized writing techniques apply to his/her own writing. Such interactive approaches have been validated by several other studies.[216]

While workshops are supported as the primary approaches for written communication development, peer coaching can provide reinforcement of skills gained from such coursework. One study that reported peer coaching paired with multisource feedback as part of a broader development initiative designed at improving self-awareness and communication can indeed strengthen written communication skills.[217] Through increased awareness of how others read their writing, participants are better able to notice when their written communications are not being interpreted correctly by the target audience.

Developmental Recommendations

- Participate in a writing workshop, or a course on written communication skills. This learning should be interactive in nature and allow for group discussion as well as direct instructor feedback on participant writing samples.
- Make use of learning partners and peer coaches to solicit feedback on written communications.

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FUNDAMENTAL COMPETENCIES: *ORAL COMMUNICATION*

Definition:

Makes clear and convincing oral presentations. Listens effectively; clarifies information as needed.

Summary of Literature:

Research suggests that leaders' oral communications skills can be developed from workshops, certain development assignments, and coaching – with each of these learning interventions placing an emphasis on practice and repetition. In the workshop/classroom setting, training can start with a formal agenda that outlines techniques known to be particularly effective in high quality communications.[218] By presenting these strategies in a formal setting, participants can focus on understanding the basic principles at hand. To practice these strategies, leadership simulations [219] or behavioral modeling[220] are recommended as specific activities that actively reinforce presented information. Post-workshop support can also help participants effectively transition techniques learned in the formal instructional setting into on-the-job performance.[221]

Coaching can be also used to help employees identify their specific problem areas in oral communication, and provide suggestions on solutions for addressing those issues.[222] One specific brand of coaching uses a leader's communication skills audit and skills inventory as a basis for a development plan; the coach's role is to assist in the construction and completion of that plan.[223] Alternatively, a coaching relationship can begin with the results of a multisource feedback assessment that targets oral communication and presentation skills.[224]

Developmental Recommendations

- Attend a workshop that covers techniques and strategies for effective communication. This workshop should be paired with interactive activities such as behavior modeling or leadership simulations allowing leaders to apply learning from the workshop into practical action.
- Take on a developmental assignment offering the opportunity to present or communicate to areas of your organization with which you normally do not interact.
- Enter a coaching relationship focused on the development of oral communication skills. This relationship should be founded on a skills audit and assessment, or multisource feedback results, informing a development plan to which the relationship aligns.

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FUNDAMENTAL COMPETENCIES: *INTEGRITY/HONESTY*

Definition:

Behaves in an honest, fair, and ethical manner. Shows consistency in words and actions. Models high standards of ethics.

Summary of Literature:

According to the literature, programs that effectively develop integrity and ethics in individuals include a focus on the establishment of ethical organizational climates, reinforced by role-modeling and service learning assignments. For example, a case study on the United States Military Academy (USMA) in West Point provides a framework identifying important components for effective organizational and individual ethics training.[225] Specifically USMA's ethics training starts before recruits join the Academy through the use of realistic job previews and organizational communications to highlight expectations of honesty and integrity. This approach coupled with an overtly ethical climate has reinforce employee ethical orientation.[226] This research has also concluded the organizations may optimize the effectiveness of ethical communications by through the use of simply-phrased and unequivocal messages (e.g., a short but explicit honor code statement[227]).

Role models play a crucial role in the development of ethical competencies, especially early in employees' careers (at West Point, cadets are immediately matched with mentors from whom they can model their own behavior).[228] Similarly, trust in leaders breeds an ethical climate so researchers encourage the use of developmental assignments – requiring high-trust relationships for accomplishment of tasks – to enhance honest and ethical behavior.[229]

Responsibility is another trait related to integrity and honesty – responsibility not just to one's organization but also to the broader community in which one is a member, and service learning programs can be used to enhance this connection.[230] These programs have two parts: (1) a formal instructional portion in which participants learn about a specific problem in the community, and (2) an active community service portion in which they go out into the community and enact change. These programs depend largely on experiential learning processes where participants derive the greatest learning impact through active engagement and interaction with the community.

Researchers have determined the success of other components of ethical training programs that target individuals' use of inappropriate rationalization during ethical decision-making.[231] For example, some programs provide "rule of thumb" heuristical decision-making – providing learners a simple guide on how to act in potentially murky situations by overriding inappropriate rationalization processes.[232] Another approach relies on the use of case studies to present real situations where poor ethical decisions were made, with the goal of exploring more appropriate and the ethical responses; this strategy enables

participants to examine ethical lapses and learn appropriate solutions and methods to address situations they may encounter in their jobs.[233]

Developmental Recommendations

- Develop a mentor relationship with a senior employee early on in the leader's career, in which the senior employee serves as a role model for ethical conduct. This mentoring relationship should be paired with a formalized organizational 'code of ethics' that clearly reinforces a climate of integrity
- Take a workshop that provides heuristical decision-making tools on which leaders may rely in addressing challenging ethical situations in the workplace. These decision-making tools will particularly help guide appropriate action in times of uncertainty.
- Take a course or workshop that includes case-studies involving poor ethical conduct. This discussion should examine the ethical failures involved in the case studies, potential causes for the failure, and solutions, or prevention or mitigation strategies that could have been applied.
- Engage in a service-learning project with an organization to enhance contact with and understanding of the community in which your organization exists.

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FUNDAMENTAL COMPETENCIES: *CONTINUAL LEARNING*

Definition:

Assesses and recognizes own strengths and weaknesses; pursues self-development.

Summary of Literature:

Research suggests that continual learning can be facilitated by multisource feedback, coaching, and instructions in self-development practices. One study found that multisource feedback changed the attitudes of leaders, and motivated subsequent leadership self-development.[234] Such feedback has also been shown to increase leader self-awareness and encourage improvement of identified skill gaps.[235] In turn, self-awareness and motivation become key drivers of continuous learning and self-development. [236] In some instances, leaders can seek coaching to learn specific skills, and researchers have found that leaders who were paired with an executive coach were more likely to set specific goals and to solicit feedback than those who did not receive coaches.[237] Coaching can also help provide leaders with motivation to continually self-improve.[238]

Self-development skills training has also been found to increase a leader's tendency to engage in continuous learning and to seek new opportunities to master new knowledge.[239] Such training should focus on skills in self-assessment, establishing self-learning objectives, self-learning monitoring, and self-learning evaluation.[240] One study found that when leaders were trained on self-development activities, they were more likely to engage in continuous learning.[241] When leaders are educated on the purpose and benefits of self-development, they are more motivated to participate in self-development activities.[242]

Developmental Recommendations

- Engage in self-development skills training. This training should be two-fold: identification of skills development needs, and ways to effectively developmental goals for those skills. This activity may be conducted through multi-source feedback—including both a skills as well as a formative—so the leader understands why specific developmental activities will be effective. Organizational support is also important to encourage these self-developmental activities.
- Participate in a coaching relationship that can facilitate self-development efforts. Multi-source feedback from supervisors, peers, and subordinates can be used as part of coaching to identify self-learning objectives.

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FUNDAMENTAL COMPETENCIES: *PUBLIC SERVICE MOTIVATION*

Definition:

Shows a commitment to serve the public. Ensures that actions meet public needs; aligns organizational objectives and practices with public interests.

Summary of Literature:

Several studies have highlighted the effectiveness of service learning for leaders to enhance their commitment and meaningful contributions to public service.[243] For example, one such study described a successful service learning project in which students received training on management ethics skills, and interacted with various members of the public.[244] Another study found that participants in service learning projects indicated that such experiences increased their "commitment to civic responsibility, view of themselves as active citizens, and their desire to become community leaders."[245]

Researchers have suggested public service orientation as an element of a leader's values can be enhanced through modeling and the use of mentors.[246] Researchers have also found in organizations with a public service mission or focus (such as Federal agencies), "active modeling of the values desired by the organization, championed by organizationally significant individuals . . . reinforces the desired values on an ongoing basis."[247] Thus, assignments that entail exposure to such individuals can be a useful means of increasing public service values and motivation.

Developmental Recommendations

- Engage in service learning activities, where leaders apply skills learned in the classroom to actual problems in the community.
- Engage in behavioral modeling paired with mentoring. The behavioral modeling should involve the active demonstration of the organization's public service values. Leaders should use mentors for support and as experts who embody and model organizational values.

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MEASURING THE EFFECTIVENESS OF YOUR LEADERSHIP DEVELOPMENT PROGRAM

To ensure the effectiveness of leadership development programs and to document and track cost savings/avoidance, organizations must be able to measure the organizational outcomes of those programs. Unfortunately, although organizations commonly invest in development programs, organizations seldom have accurate or meaningful insight into the effectiveness and value of their development programs, aligned to organizational needs and priorities.

Before investing time and resources in creating or enhancing a leadership development program, agencies should conduct a thorough needs assessment. The purpose of a needs assessment is to identify organizational performance gaps and the knowledge, skills, and abilities of employees required to close those gaps. Successful needs assessments also maximize the overall accuracy of the development program evaluation. The following represents four critical components of an effective needs assessment:

- Identification of critical organizational challenges that drive the need for leadership development.
- Identification of targets for leadership development and leadership needs relating to a client's business challenges.
- Identification of change required to solve a business problem or to meet an organizational challenge.
- Identification of specific, measurable outcomes of leadership development, including the level of mastery desired for these outcomes.

Especially during times involving constrained budgets, agencies should prioritize effective program evaluation to ensure optimal allocation of resources (time and money) and return on investment. Organizations commonly measure program effectiveness only by gathering data through assessments of individual executive learning, and this limited method typically allows organizations to measure only participant learning and behaviors. To properly evaluate development programs, agencies should consider the following additional metrics and assessment tools:

- Comparisons of expectations and benefits
- Interviews or open-ended questionnaires
- Employee engagement/satisfaction
- 360-degree retests
- Quality of the agency's products and services
- Benchmarking with other executive development programs
- Retention of leadership talent

Organizations that most accurately measure the impact of developmental efforts use both qualitative and quantitative metrics and focus on the individual as well as the organization.

For additional information regarding program evaluation, please see the *GAO 2012 Designing Evaluations*[248] report available on OPM's online Federal Training and Development Wiki at (http://www.opm.gov/WIKI/training/MainPage.ashx). The OPM wiki is a collaborative website dedicated solely to Federal learning and development content. Agencies are able to share creative ideas and training tools that will assist them in developing and implementing programs in new, more efficient, and fiscally-responsible ways. Additional information is available in OPM's *Training Evaluation Field Guide*[249] designed to assist agency training representatives in evaluating training effectiveness and in demonstrating training value to stakeholders and decision-makers.

APPENDIX
DEFINITIONS OF LEADER DEVELOPMENT LEARNING ACTIVITIES

Interventions/ Activities	*Definitions/Descriptions*
Instructor-led	***This type of training is facilitated by an instructor either online or in a classroom setting. Instructor-led training allows for learners and instructors or facilitators to interact and discuss the training material, either individually or in a group setting.***
Structured training programs; Formal course work; skills workshops; Web-based training	Structured learning activities involve instructor led presentations of leadership theories, models, principles and skills. Students are provided with lectures, demonstrations, and exercises to foster knowledge and skill acquisition. These types of learning activities are usually a precursor to more active learning exercises.[4]
Case discussion	Case discussions, or the case method approach, present learners with descriptions of organizational and leadership problems and the effective (or ineffective) solution strategies used by the actors in the case scenario. Learners analyze and discuss the case in groups to form understanding of the issues involved in particular cases, learn appropriate solution strategies, and develop relevant skills.[5]
Experiential Variety	Experiential variety involves providing learners with multiple, carefully structured practice problem scenarios that vary significantly in the kinds of solutions that need to be generated for success.[6]
Cultural assimilator	A cultural assimilator is a computer-based training intervention in which a learner receives a series of intercultural vignettes and is asked to respond to forced choice questions about cultural nuances and differences. Responses are followed by automatic feedback.[7]
Experiential Activities	***Experiential activities are developmental tasks that occur in immersive environments and allow learners to naturally generate questions. These questions are optimally answered at the time they are generated. The key to experiential activities is hands-on learning and conversation; either virtually or in face-to-face interaction.***

Interventions/ Activities	*Definitions/Descriptions*
Action learning; Active learning	Action learning and active learning are a self-directed approach to learning in which individuals and teams develop and present solutions to actual organizational problems.[8]
Outdoor Challenge Exercises; Personal growth programs	Outdoor challenge exercises involve groups of learners participating in physically oriented team exercises. These exercises are designed to encourage growth in team trust, team communication, and interpersonal cooperation. Personal growth programs focus more decision making and self-exploration exercises that are intended to foster greater self-awareness.[9]
Service Learning	Service learning involves active learning projects and exercises where the central tasks and problems have a form of community service as their primary focus.[10]
Scenario planning	In scenario planning, learners consider and develop multiple future strategic alternatives for organizations. These alternative scenarios are then used as the basis for collective discussions, decision-making, and organizational learning.[11]
Error Management Training	In error management training, learners engage in active learning where they are encouraged to experiment with different solutions, and learn from the errors they make in their problem solving.[12]
Simulations; Games	Simulations and games present learners with realistic problem scenarios that require them to play roles in generating solutions. They typically include constrained problem environments with specific parameters for solution generation.[13]
Behavioral modeling; Role modeling, Role-play	Modeling is a training approach that involves emulating the use of targeted behaviors and skills in defined contexts. In modeling exercises, learners are shown displays of effective targeted behaviors, and provided practice opportunities with feedback.[14]

Interventions/ Activities	*Definitions/Descriptions*
Developmental (Stretch; Challenging) assignments	A development assignment is one that is designed to stretch a learner beyond existing skills, to challenge the learner to expand and grow these skills in order to meet more complex leadership performance requirements.[15]
Job Rotation	In a job rotation, learners are reassigned to alternative organizational positions in order to learn about different functional areas and acquire new job knowledge and skills.[16]
"Stamping-in" assignments	Stamping-in assignments provide opportunities for learners to practice skills gained in formal courses and workshops.[17]
Developmental Relationships	***Developmental relationships are either formal or informal and involve one individual taking an active interest in and initiating actions to advance another's development. They are the kinds of relationships that serve as key sources of assessment, challenge, and support.***
Coaching	Coaching involves an interaction between a coach and a leader that focuses on fostering the leader's self-understanding, the preparation of an individual developmental plan, and guidance and support in fulfilling that plan.[18]
Networking	Networking involves the formation of learning partnerships, where learners acquire sources of social support for their developmental efforts. These partners provide advice about appropriate learning activities, and feedback about these activities. Networks can also provide support for career development and upward job mobility.[19]
Mentoring	Mentoring is a process in which a more experienced and senior member of an organization provides developmental support and career advice to a less experienced and more junior protégé. Mentors may also help protégés gain a better understanding of complex organizational and strategic environments.[20]

Interventions/ Activities	*Definitions/Descriptions*
Adaptive Guidance	Adaptive guidance involves the provision of information to learners about their most appropriate developmental strategies and learning directions.[21]
Assessments & Feedback	***Multisource feedback is a process of acquiring performance feedback from multiple rates and sources, including a leader's superiors, peers, and subordinates. Leaders also provide self-ratings. Feedback intensive programs include not only assessments of performance, but of leader personality, skills, and other dispositions. Such feedback is intended to foster greater self-understanding and facilitate the construction of effective individualized development plans.***
Self-development	***Self-development is any self-initiated and proactive learning process where learners are responsible for (a) assessing their own strengths and developmental needs, (b) designing and completing their instructional curriculum, and (c) evaluating their own learning progress.[23]***

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