CHAPTER

17 Assessment Centers: A Blended Adult Development Strategy

Lynn Gracin Collins *and* Sandra B. Hartog

Abstract

This chapter addresses and defends a growing trend in the application of Assessment Centers as a management development strategy for adult learning and describes how innovations in technology can elevate a traditional assessment center design to allow for a comprehensive blended learning approach that supports multiple styles of learning and learners. Drawing on best practices, the chapter offers a guideline for designing and implementing an assessment center. The chapter also examines innovations in technology-enhanced assessment centers (TEACs) as a way to add to the fidelity and impact of an assessment center experience. The chapter includes client case studies and directions for practice and research.

Keywords: assessment center, technology-enhanced assessment center, TEAC, adult learning, innovation, technology, assessment center fidelity, blended learning, future of assessment centers, design of assessment centers, management development

Why Development Is Important

An abundance of research demonstrates that we are on the verge of a substantial talent shortage. Virtually all the human resource executives in a 2005 survey of 40 global companies reported that their pipeline of high-potential employees was insufficient to fill strategic management roles (Ready & Conger, 2007). Now five years later, we have seen this trend grow even stronger. When companies consider their leadership pipeline, the demographic realities of today's workforce are hard to ignore. Painful downsizings over the past two decades have eliminated many organizational layers and reduced costs, permitting companies to stay lean. Unfortunately, the cost of doing more with less is now evident as companies experience a depletion of their management ranks and limited pools of qualified talent to fill critical leadership roles now and in the future.

To contend with this reality, organizations must decide whether to acquire talent from the external labor market, do nothing and likely experience a competitive decline, or tap into their existing workforce, thus growing and retaining their own talent. While employee development has often been viewed as a valuable Human Resources (HR) initiative, today it represents a critical piece of an organization's strategy for building and sustaining an effective talent pipeline. As more businesses are built on providing services, human capital is the primary asset and means of production for these businesses. Thus leading that asset is critical. Organizations need to provide development in order to ensure individuals possess the skills necessary for success as they advance through progressive leadership positions. At the senior-management level, development has even greater implications because failure at this level can result in significant tangible and intangible costs for an organization.

Fostering a sustainable pipeline of talent that can execute current and future strategies requires a systematic approach to development. Companies are stepping up their leadership development programs

by committing significant resources to education and training in order to deepen the competencies and experiences required for current and emerging leadership roles. Effective training and development programs can enhance a company's ability to prepare its workforce and thereby achieve business results such as profitability, growth and expansion, and successful competition.

Learning and development professionals have to make tough choices in deciding how to develop their people. By no means is this a comprehensive list, but what follows is a brief discussion of the more popular types of developmental approaches. The reason for reviewing them here is to identify the most salient characteristics, advantages, and disadvantages of each and to demonstrate why we believe assessment centers are a top choice developmental strategy.

Types of Development Strategies

INDIVIDUAL DEVELOPMENT PLANS

Customized and achievable individual development plans are vital for developing talent. Individual development plans (IDPs) typically include short- and long-term goals, objectives, and action steps. Development planning in best-practice organizations involves significantly more than an effortless "fill in the box" exercise. High quality development programs employ processes that signal to the employee that the company is truly committed to his/her career growth by ensuring that the planning process is aligned with individuals' career goals, includes realistic career development and skill expectations, and provides adequate follow-up on the execution of the development plans. Most importantly, there needs to be accountability for constructing the plan and accountability for following through on the plan. While IDPs can be a positive first step, they often dissolve into mere administrative exercises if they are not coupled with other interventions or processes.

EXPERIENTIAL OR "STRETCH" ASSIGNMENTS

Experiential learning has a significant impact on development. However, the impact comes not simply from providing employees with experiences, but from structuring the experiences around key elements and realistic business challenges that the company considers significant to enable accelerated learning.

These developmental assignments place employees in new roles or unfamiliar job environments to strengthen skills and competencies and broaden their experiences. People in these roles need a lot of support, guidance, and time to reflect for the experience to be meaningful from a developmental perspective as well as from the perspective of the greater goals of the organization. Often these elements are left on the sidelines and are not formally incorporated into the assignment. A frequent complaint in identifying true developmental assignments is that those assignments that truly have the potential or inherent stretch to be developmental may also have a large degree of business or personal risk associated with failure. Those that are less risky are often not perceived of as developmental, but rather tend to offer more of a change in scope or business unit knowledge, or task accomplishment, and do not embed true skill-based development.

While "stretch" assignments continue to be the development tool of choice in many companies—where roles and levels have been eliminated—there may not be ample "stretch" assignment opportunities to go around. As a result some organizations provide other types of developmental experiences to expose individuals to new activities outside of their regular responsibilities while still performing their regular duties. Experiences working outside of one's comfort zone while on the job can offer valuable learning. Some examples include task force assignments, special projects, increases in scope, and cross-functional and international project team roles. Leading organizations have embraced this type of action-learning process, a process of continuous learning with an emphasis on addressing important business issues and the receipt of feedback on the outcomes.

COACHING

Relationship-based developmental activities are a close second to experience-based learning in terms of being an effective strategy for development. Observing and having access to experienced leaders and coaches are important sources and accelerators of learning. Hence, coaching plays an important role in development programs, especially when expectations are made clear and tied to explicit development goals. Coaching helps to ensure that employees have the appropriate resources and supports to develop the skills needed to further their careers and the organization's talent needs. Coaching is often considered an effective and low-cost aid to employee development when organizations rely on the expertise of internal coaches and mentors. However, many companies also employ external coaches for more senior talent in their organization.

The benefits of an external coach can include various types of functional expertise (e.g., technical, cultural, geographical, skill-based), objectivity (not being a part of the organizational system), and the opportunity to discuss sensitive issues and fears that often cannot be shared with internal colleagues.

Coaching provides high touch and personalized feedback, which can be very impactful for participants (see Susan Battley, chapter 18 in this volume). Prior to commencing a coaching relationship, organizations typically use a variety of tools to obtain information or feedback on performance and potential, as well as to assess strengths and development needs. Commonly used methods for obtaining feedback include: multirater feedback (e.g., 360s), assessment centers, and objective tests. This data gathering or "assessment" exercise is then shared with the participant. Effective coaching often depends on the level of self-awareness participants have, and their ability to identify and accept the roots of the issues they need to work on. Additionally, coaching programs often lack rigor and fail to create any degree of standardization across an organization. This is particularly important if one of the goals is to promote development or learning objectives specific to an organization.

TRADITIONAL TRAINING

In addition to developing individuals for future leadership roles using the strategies above, it is common for employees to attend development programs at universities and for companies to partner with external vendors to provide additional training courses. Attending external development programs helps individuals learn functional or technical skills and think through issues while challenging their abilities to think innovatively and expanding networks both inside and outside the organization. External development programs range in topic areas, length, and cost. Many universities with graduate business schools offer an executive MBA program, the duration of which is generally two years, taking place on evenings and/or weekends. More targeted programs—with lengths ranging from a few days to eight or more intensive weeks—focus on building particular skills or competencies, and differ by management level and intended impact.

These programs can be very expensive and often require extensive time away from work. There is also a difference between generic or off-the-shelf programs and custom designed ones that focus on particular issues relevant to particular organizations. Off-the-shelf programs can be useful for learning functional skills and meeting people outside of the organizational network. Custom programs, while generally significantly more expensive, can be used for implementing organizational changes or dealing with larger sections of the internal talent pool.

E-LEARNING

E-learning or learning that is facilitated and delivered via computer technology, is another popular development approach (see Richard Mayer, chapter 19 in this volume). There are many advantages to this approach regarding flexibility of use, opportunities to pick and choose those courses that are most interesting or appropriate, ability to cover material at one's own pace, delivering information through a variety of exercises, and leveraging different learning styles. There are disadvantages to e-learning as well. The material may be too elementary for some audiences and yet be too dense for other purposes. Trainees can become bored and disengaged with e-learning given the relative lack of stimulation compared to other types of development programs. They can also feel isolated and deprived of social interaction. Additionally, those less motivated or engaged may find ways to "game" the system, and not apply best efforts or even fall behind and not complete the program.

E-learning may be more effective at teaching "hard" skills, such as compliance training or delivering product knowledge. It is more difficult to teach soft skills through e-learning than skills that can be articulated through a common body of knowledge. For managerial populations, the necessary skills comprised of social or interactive components and affected by noncognitive attributes are more difficult to learn. Customized e-learning can be very expensive to develop and open source e-learning may be too generic or at too low a level for the critical development areas facing today's managers.

BLENDED LEARNING STRATEGY

Best-practice programs advocate a blended learning approach and rely on a combination of development activities that could include classroom-based or e-learning training, individual development plans, mentoring and coaching, on- and off-site lectures and training activities, special assignments, and self- and external assessment. We know that there is no one-size-fits-all solution and that different skills are best taught through a range of media. In addition, a blended learning approach can take into account differences in learning styles and speak

to issues of scale, the wide dispersion/globalization of an organization's employees, and the impact on the learner.

Assessment centers can be considered a blended learning strategy as they include elements of each of the development activities discussed above. In general, they provide an opportunity to place employees in new roles or unfamiliar job environments to broaden their experiences and strengthen skills and competencies. Assessment centers have high touch, can provide personalized feedback, often include targeted learning, and provide a process for learning and reflection. Finally, they often result in customized and actionable development plans.

Assessment Centers Defined

Assessment centers can be defined as a set of coordinated activities that involve a simulation of actual job situations with challenges that are used to assess multiple dimensions through multiple methods of observation using trained assessors who integrate multiple observations of participant performance. The classic assessment center design involves management-level participants assuming a role in a fictional organization and, over the course of one to three days, taking part in a series of exercises at a designated assessment location. Participants are initially provided with background materials that include information about the simulated company, organizational structure, simulated role they will have in the organization, and information about people they will interact with in the simulated organization. While the participant engages in the assessment activities, his or her behavior is observed and evaluated. Assessment centers rely on exercises that are designed to simulate important roles and responsibilities of a target job or role, and are specifically constructed to elicit behavioral evidence to reflect the competencies[1] identified as necessary for success. The exercises help assessors observe how someone actually behaves in a role or situation and are different from all other tests or assessments, which rely on participant self-reports of how they "would" behave if in a situation or how they "did" behave in the past. Assessors generally integrate the data captured to arrive at decisions concerning effectiveness in each exercise and skill level of each competency measured. Often included is an overall measure of potential or readiness for a targeted position if the assessment results are to be used for purposes other than development. The outcomes of an assessment center typically include high touch personalized feedback based on the assessment results and some type of written report that outlines strengths, development needs, suggested development activities for the participant's development planning, and identifies coaching opportunities.

One of the most valuable elements from a developmental perspective is that they support a realistic job preview or tryout by placing participants into stretch or unfamiliar roles and giving them a chance to perform. However, there is limited risk or downside to poor performance for the organization since the participant is working in a simulated world, not a real one.

The Distinguishing Elements of an Assessment Center

There are many variations of assessment centers, but to be a true assessment center, the following nine elements as outlined by the International Task Force on Assessment Center Methods in the Guidelines and Ethical Considerations for Assessment Center Operations (2009) must be present:

1. **Job Analysis**—An important first step in the process of developing and validating assessment procedures for organizations is to conduct a thorough job analysis as described by the Federal government's Uniform Guidelines on Employee Selection Procedures (Equal Employment Opportunity Commission [EEOC] et al., 1978) and professional standards, specifically, the *Standards for Educational and Psychological Tests* published by the American Psychological Association et al. (American Educational Research Association, et al., 1999) and the *Principles for the Validation and Use of Personnel Selection Procedures* published by the Society for Industrial and Organizational Psychology (1987, 2003). A job analysis identifies the work performed and the important knowledge, skills, abilities, and other personal characteristics of the jobs being assessed. In the case of an assessment center, a job analysis also provides information about roles, responsibilities, and critical incidents that drive the development of the assessment exercises and simulation(s).

2. **Behavioral Classification**—Evaluations of participant behaviors must be classified into meaningful categories or dimensions that are critical to success. The classifications can be according to assessment exercises, behavioral dimensions identified through the job analysis, or both.

3. **Assessment Techniques**—The job relatedness of each exercise needs to be established.

Each exercise's representation of critical task areas and competencies needs to be established to ensure content validity.

4. **Multiple Assessments**—This is one of the trademarks of an assessment center. Multiple assessments or exercises are used to evaluate each of the dimensions assessed. In this manner there is overlap in the evaluation so that behavior can be observed across multiple activities.

5. **Simulations**—Assessment techniques, activities, or exercises must include at least one job simulation (e.g., in-basket or role-play), but can also include other tools such as interviews, tests, business cases, and career accomplishment records. Most centers include multiple simulations and today it is not uncommon for many centers to include multiple related simulations to replicate a "day" or "time-in-the-life" of a busy professional. These are referred to as "day-in-the-life" or "day-in-the-time" simulations.

6. **Assessors**—More than one assessor needs to observe and evaluate each participant to enhance the accuracy and the reliability of the ratings.

7. **Assessor Training**—Assessors must be properly trained. According to the International Taskforce on Assessment Center Guidelines (2009), all training should include the dimensions to be assessed; guidelines on observing, recording, and classifying and evaluating behaviors; the exercises and dimensions targeted; and the avoidance of common rating errors. Depending on the purpose, the Assessment Center Guidelines also mention that assessor training may also include knowledge of the organization, the target job, role-playing instructions, and knowledge of the organization's assessment policies.

8. **Recording Behavior and Scoring**—Behavioral observations need to be recorded and scored systematically to ensure a rigorous, standardized, and reliable process.

9. **Data Integration**—Observations by multiple assessors of multiple exercises or activities need to be combined into competency or exercise ratings and possibly an overall rating.

Typical Assessment Exercises

Assessment centers vary in the number and type of exercises they offer. While an assessment center must include multiple opportunities to assess, there is no requirement as to the combination of the exercises to be included as long as at least one simulation is part of the assessment protocol. What is important is that each dimension is assessed at least twice within different exercises. As part of the simulation, the busy professional faces a variety of challenges and assumes a particular role, as himself or herself in the simulated organization. Some examples of popular challenges are found in Table 17.1.

These challenges are delivered to the participant during the exercises. We purport that four of the most critical exercises are the in-basket, role-play, debrief interview, and career accomplishment interview or survey. Depending on the purposes, goals, and dimensions, some centers also ask participants to complete personality and cognitive measures that provide additional information related to the competencies.

The general idea of an in-basket exercise is to place the participant in a situation where he or she is required to respond to work issues as they occur or take action on typical items that have "built up" over time in the in-basket on someone's desk. The participant's return correspondences (e.g., notes of what they would do) and action items are reviewed for key dimension (e.g., competency or role) themes.

Table 17.1 Examples of assessment center challenges

• New product launch
• Client billing errors
• Employee retention
• Team staffing
• Employee underperformance
• Unpopular company policies
• New business opportunities
• Resource negotiation and allocation
• Employee conflict
• Employee and team performance management, coaching, and development
• Crisis management
• Employee training challenges
• Organization staffing
• Inventory management
• Culture change
• Customer service difficulties
• Business plan creation

Historically the in-basket contained letters, memos, faxes, reports, and other documents of correspondence. With the advent of technology, today's in-basket exercise mimics our current work environment and contains e-mails, voicemails, and attachments that are delivered via an inbox on the participant's computer desktop.

In a role-play exercise, participants engage in a simulation of an interpersonal business situation that could occur on the job. A participant is given background information about the need to interact with an individual. The background information outlines the presenting problem and typically also includes personal information about the individual(s) involved. Role-plays may occur at a prearranged time so that the participant can prepare for the interaction or they can be unplanned requiring the participant to be spontaneous and "think on his/her feet." In either case, the participant engages in a role-play interaction with an assessor or other designated confederate. Role-players have specific roles and scripts that are designed to elicit behavioral evidence of particular competencies as well as provide structure so that each participant has as standardized an experience as possible. Some common role-plays include: a coaching conversation, the presentation of a business plan, a recruiting conversation, a performance evaluation conversation, the need to collaborate with a peer or group of peers, or a difficult client conversation. These roles should represent relationships that are critical to participants' success in the simulated world and translate to relationships in their real worlds. The confederate role is most often a peer, supervisor, client, or subordinate.

We find the debrief interview the most critical yet seemingly least referenced exercise. The goal of this exercise is to understand the rationale behind particular actions taken by participants. Prior to the conclusion of the assessment, and often the very last exercise, assessors interview participants to gain additional insight regarding their actions throughout the assessment center exercises, including participants' perceptions of the outcomes of their actions. In best practices, an assessor uses a structured interview protocol to explore participant's reactions to each of the exercises, what they did, how they did it, why they did it, what they would do differently, what they learned, etc. The participant's rationale for the choices or decisions made provides valuable insight into his or her operating and learning style, behaviors, and personal understanding of strengths and weaknesses. The information obtained during the debrief interview is used to further inform the assessor to determine dimension ratings by providing context for the participant's behavior and can be especially helpful information to be leveraged in the feedback or coaching discussion. Without a debrief interview the assessor loses access to valuable information and has to make assumptions about many of the participant's behaviors. Additionally, the debrief interview creates part of the high touch experience valued by participants and helps them to feel understood. This leads to a greater perception of validity and an overall tendency of participants to accept the subsequent ratings and developmental suggestions.

Information about the participant's past work history and career goals is particularly important in an assessment center used for development. Interviews or questionnaires about career history, career goals, current responsibilities, and recent development or training programs are typically used to inform the feedback or coaching conversation. This information helps the assessor/coach responsible for feedback more effectively guide and coach each participant by placing the observations of behavior and competency scores in context.

A Comparison of Developmental Approaches

To help organizations consider which process or processes to use to prepare individuals for tomorrow's challenges, we offer the following comparison of developmental approaches across a range of criteria critical to organizations today and we believe in the future. Table 17.2 compares methods based on the cost of the intervention, the potential impact and sustainability of the learnings, the systematic rigor of the approach, the ease of customization to a particular organization or set of development needs, and the appropriateness of each for different participant levels. Each approach has benefits and drawbacks and in conducting this review it becomes evident that the choice is primarily driven by an understanding of organizational needs and learning goals. However, if we consider for a moment only those that have the potential for the greatest impact on an individual's development and learning, stretch assignments, coaching, and developmental assessment centers top the list. We would suggest that this is due to the learning elements embedded in each. Each of these activities involves learning by doing and feedback. They are relatively easy to customize to unique needs or to apply particular elements of each strategy to particular learning needs. Feedback

in stretch assignments comes from objective outcomes and success metrics and can be informative, positive, or in the worst cases, quite costly. Coaching is very impactful but needs to be closely managed to be certain it supports the organization's goals as well as the individual's. Developmental assessment centers allow for practice, feedback, and support and drive learning as desired by the organization.

Another perspective on understanding the value of these developmental activities is to view them through Honey and Mumford's concepts of learning styles (Honey & Mumford, 2006), and the tools and activities of an assessment center. Their model defines four learning styles: Activists, Pragmatists, Reflectors, and Theorists. Each of the styles is defined as follows:

- *Activists* like to be involved in new experiences. They are open-minded and enthusiastic about new ideas but get bored with implementation. They enjoy doing things but tend to act first and consider the implications afterwards. They like working with others but tend to hog the limelight.
- *Pragmatists* are keen to try things out. They want concepts that can be applied to their job. They tend to be impatient with lengthy discussions and are practical and down-to-earth.
- *Reflectors* like to stand back and look at a situation from different perspectives. They like to collect data and think about it carefully before coming to any conclusions. They enjoy observing others, and will listen to others' views before offering their own.
- *Theorists* adapt and integrate observations into complex and logically sound theories. They think problems through in a step-by-step way. They are likely to be perfectionists who like to fit things into a rational scheme. They tend to be detached and analytical rather than subjective or emotive in their thinking.

Table 17.3 lists the same developmental activities as Table 17.2, but addresses the activities using the evaluative criteria through the lens of Honey and Mumford's (2006) theory. If we accept the premise that individuals rely on different learning styles and the more styles incorporated into each learning activity, the more effective the activity, we begin to arrive at similar conclusions. A developmental assessment center appears to incorporate the greatest number of learning styles, with blended learning and coaching following as close seconds. This makes intuitive sense since these three approaches contain the most elements or activities for the learner, and therefore, incorporate the greatest number of learning styles.

Let's look more closely at the elements of a developmental assessment center. In a typical assessment center that includes at least one simulation by definition, there are multiple opportunities to address an individual's preferred learning styles. The simulation part of the assessment, wherein participants can work in a business simulation, answering e-mails, making calls, and role-playing, encompasses learning by doing. Learning through feedback happens in all development centers; it may happen throughout the program and/or at the end of a program. Learning through concepts is included by presenting participants with a competency or leadership model that includes critical dimensions and responsibilities. Learning by reflection in the program is accomplished through the typical pre-assessment materials, reflection worksheets, coaching

Table 17.2 Comparison of developmental approaches by criteria critical to organizations today

Types of Developmental Activities	Impact	Cost	Rigor	Flexibility/ Customization	Level of Participant
Individual Development Plans	Low	Low	Low	High	Flexible
Experiential or "Stretch" Assignments	High	Depends on risk level	Low	Medium	High
Coaching	High	High	Low	High	High
Training	Variable	Variable	Variable	Variable	Flexible
E-learning	Variable	Variable	Medium	Low	Medium/Low
Developmental Assessment Center	High	High	Medium/High	High	High

Table 17.3 **Comparison of developmental approaches through the lens of Honey and Mumford (2006).**

Types of Developmental Activities	Activist By Doing	Pragmatist Through Feedback	Theorist Through Concepts	Reflector Through Reflection
Individual Development Plans	√	√		
Experiential or "Stretch" Assignments	√	√		√
Coaching		√	√	√
Training		√	√	
E-learning		√	√	
Developmental Assessment Center	√	√	√	√

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conversations, and development planning activities. Linking these to the Honey and Mumford learning styles, Activists have the opportunity to have new experiences. Reflectors have opportunities to acquire data during the simulation experience and think about their perspective. For Theorists, there are target models of behavior and success. Finally, for the Pragmatists, the simulation reflects real-world challenges that are seen as highly relevant and provides learning that is transferable to the real world.

Assessment Centers Today and Technological Innovations

Since the groundbreaking work at AT&T in 1956, new applications of the assessment center method and the use of simulations have multiplied. In 1975, the International Task Force on Assessment Center Methods created the first set of Assessment Center Guidelines in response to the continued growth of their use. In 1997, Spychalski, Quiñones, Gaugler, and Pohley noted the popularity of assessment centers for nearly 50 years and almost a decade later, they continue to be "rediscovered" as state of the art methodology (Riggio, 2008).

While the assessment center has its roots in selection and the early identification of managerial talent for promotion, and succession, the assessment center has become an increasingly popular development tool for management skills (Lievens & Thornton, 2005). In 1997, almost 40% of organizational assessment centers were used for development (Spychalski et al., 1997). Based on our experiences and those of our colleagues, this trend appears to be continuing. Despite an ongoing discussion about the best way to frame, develop, and score assessment center exercises (e.g., Lance, 2008), assessment centers are an exceptional method for collecting a wealth of performance information aimed at providing developmental feedback. Additionally, meta-analytic research has shown the effectiveness of assessment centers at predicting employee job performance and career achievement (Gaugler, Rosenthal, Thornton, & Bentson, 1987; Guion, 1998; Jansen & Stoop, 2001).

Developmental assessment centers can be used for diagnosis of developmental needs and/or as a method to develop and practice skills. Participation in a center that identifies strengths and development opportunities typically prepares managers for the next level of their development and helps them engage in targeted development activities to increase the likelihood for success at the next level. For example, a participant may engage in an activity that simulates a higher level and broader role than he or she currently holds. At the conclusion of that center, the participant would receive feedback and suggestions for development specifically targeted to enhance their readiness for that next step. Simulations can also provide a way to accelerate the learning process for managers. As a training technique by themselves, simulations provide opportunities for participants to learn and enhance their skills in a risk-free environment through practice. For example, a new manager may engage in a simulation that targets the development of coaching skills. Participation in the simulation enables the manager to receive specific feedback, coaching, and guidance about coaching before engaging in a real coaching conversation with his or her subordinate. This opportunity to practice and receive feedback,

possibly along with other developmental components, is a valuable step before a new manager has a coaching conversation with a subordinate that could have costly results. In essence, in these cases simulations become a valuable mechanism to accelerate learning by providing lessons from experience with low risk and without having to wait to gain experience from the job itself.

While assessment centers have always been considered a top choice for high impact, professional development they have come up against some practical criticisms in recent years. In particular, organizations have begun to push back on time commitments, costs, and the resources required for implementing and administering assessment centers. Traditionally, assessment centers were thought of as solutions appropriate for more senior level management and as something that should be used for small groups of select individuals due to the associated costs to develop, deploy, and standardize across multiple settings. Additionally, the gaps between the activities in a traditional assessment center and the actual environment in which people work have widened to the point where an assessment center no longer appears to have face validity or to represent a true day- or time-in-the-life simulation. The participant's world has changed. The work environment has become technology-rich where information moves quickly if not instantly, e-mail is the chosen means of communication, and personal interaction is much more likely to happen via phone or the Internet than face-to-face.

Along with the changing participant's world, technology has changed the way assessment centers are developed and administered and has led to new opportunities to broaden their use. Initially, technology was used in assessment centers for online rating forms and reports. Recent innovations have advanced to the point where it is possible to create an environment with e-mails, video streaming role-plays, voice and data transmissions, virtual e-rooms for group discussion, html embedded links that allow for instantly changing data to be presented, as well as personalized correspondences that embed the participant's name and other individualized information (Eurich, Krause, Ciguralov, & Thornton, 2009). The level of realism is growing so that a technology-enhanced simulation begins to feel very similar to the actual work environment, and the absence of these technology driven activities seems unrealistic. See Figure 17.1 below for an example of a technology-enhanced simulation used for development purposes.

You can see the "virtual" desktop looks quite similar to a typical computer desktop found in any organization. It operates similarly with e-mails, voicemails, historical files, databases, personnel records, budget reports, etc., accessed via a simulated computer server environment. Overlaying the virtual office can be links to other learning elements to enhance a participant's developmental experience. These can include 360-degree survey results, personality profiles, competency evaluations, links to e-learning materials, access to development planning resources, and more.

Technology also allows for simultaneous assessments across multiple geographies by multiple assessors with minimal expense. Thus scalability is no longer an obstacle to broadening the population of assessment center users within an organization. Technology can provide participants other than the senior managers they have traditionally targeted (e.g., entry-level managers, mid-level managers, sales positions) access to the benefits of assessment centers. It provides for global distribution and implementation with centralized control, if desired. Technology allows for a much higher degree of standardization of the assessment processes than was possible historically. It creates opportunities to capture data immediately, conduct instant analyses, and provide fast turnaround of evaluations.

The advances in technology have opened new opportunities and created new responsibilities for assessment center practice. As the field and practice of assessment centers continues to evolve, we expect to see more organizations using technology in their assessment centers. In fact, in response to the increased use of technology, the International Task Force on Assessment Centers most recently added guidance around the use of technology to The Assessment Center Guidelines at the 34th International Congress in Washington, DC (*Guidelines and Ethical Considerations for Assessment Center Operations*, 2009).

Deciding when to Use Technology in Assessment Centers

Given the growing excitement and movement toward some form of technology-enhanced assessment center (TEAC), it is a valuable exercise to step back and review this from the perspective of what does it take to make the move to technology-enhanced assessment centers and if an organization or client has what it takes—should they make the move.

With the opportunity for TEACs certain questions become relevant. The first and most general is

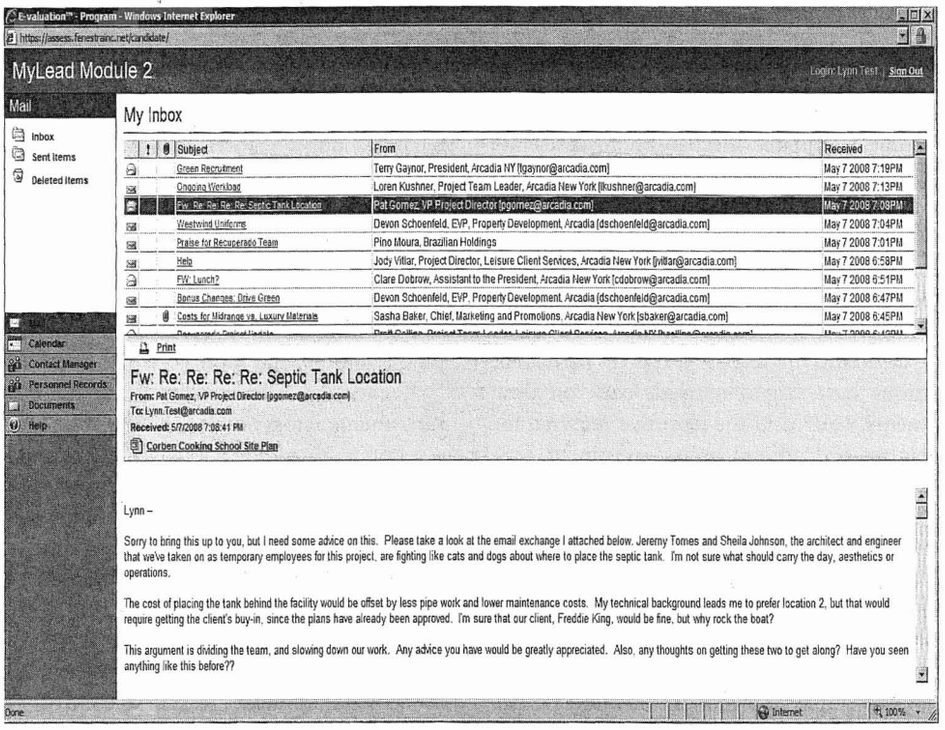

Fig. 17.1 Assessment Center inbox that reflects the interactivity of a real computer desktop

whether TEACs are warranted or relevant in a given organization or setting, second is what criteria are relevant for making a decision about deploying TEACs, and third, is to consider what types of accommodations, if any, would be needed to support the implementation of a TEAC. The discussion and questions that follow can be used to determine whether it is appropriate to move from a traditional assessment center paradigm to a technology-enhanced one. They can serve as a vehicle for discussion between those responsible for designing and implementing the center and those responsible for supporting the center and utilizing the outcomes. They are by no means exhaustive, but can be very useful when making the decision to use technology or not. Additional questions may be added if they pertain to particular aspects of a given situation or organization, needs of participants, or learning goals to be addressed.

PRE-ASSESSMENT DESIGN CONSIDERATIONS

From a pre-assessment design perspective organizations need to consider whether a TEAC is appropriate for their goals. If the organization would like the opportunity to assess more people in the organization and there is a need for scalability, a TEAC should be considered. The key factor that impacts the scalability of traditional assessment centers is the need to bring numerous assessors and candidates to a single location to conduct the assessment and the associated costs and logistics. The web-based deployment and portability of the assessment center allows people—assessors, participants, and other stakeholders—to participate from any location. In the TEAC model, both internal and external assessors are able to perform their roles virtually, with no travel involved, and limited facilities to coordinate. Required facilities, where the participant is to be located, typically consist only of an empty office with a computer that has high-speed Internet access, a phone, and a printer. Similarly, if there is a need for stakeholder involvement for developmental reasons, the use of a Web-delivered center affords opportunities for a greater number of people to participate from an endless range of locations. If the organization is addressing roles that reflect an increasing reliance on technology, if the organizational culture is supportive of technology, and if they would like to reflect the responsibilities, challenges, and modes of communication commonly used in the simulation, then a TEAC should be considered. Additionally, if there is a need for data capturing or integration into a human resources information

system (HRIS), TEAC is well positioned to easily and rapidly provide aggregate and individual data reports. Technology may also be desirable if there is a need to reduce the cycle time required for scheduling and administering assessment centers. In a TEAC, participation can be scheduled within days rather than the weeks and months needed for traditional on-site centers, since there is no need for travel or location arrangements. Also, it is significantly easier to assemble a team of professionals when people do not need to travel or take several days out of an already busy schedule to participate in the center. However, most important from a pre-assessment design perspective is the question of the availability of technology and resources to administer and support the program, and access to technology support. Often this requires a very close partnership between the assessment professionals and the technology staff. It is best to include a dedicated IT professional on the project team who can be responsible for maintaining the technology and integrating data into other HR systems when necessary.

Pre-assessment Design Questions to Determine if Technology is Right:

- Is the audience appropriate for Web-based assessment? Does the job require the use of technology?
- Is the organization comfortable with or desirous of technology? Do they currently use technology?
- Is the targeted group in dispersed locations and/or global? Is there a need for scale?
- Is there a need to provide participants with a realistic job preview and/or learning elements?
- To what level is stakeholder involvement needed or encouraged?
- Are there resources available to support the development and rollout of a technology program?
- Is there a desire for integration, documentation, and placement within a Learning Management System or HRIS?
- Is there a desire for a shorter assessment cycle?

IMPLEMENTATION CONSIDERATIONS

There are several criteria that need to be addressed that pertain to the specific elements of the TEAC and that may occur during the center.

The first is whether a technology-enhanced simulation will be robust enough to gather all necessary data during the development center. For example, if the position or organizational culture relies on a high degree of face-to-face or group contact, then a technology driven design may not be appropriate. If there is a need to gather and deliver data from multiple virtual sources (e.g., assessors, coaches, e-learning systems, and such), then a technology-enhanced design would be best. It is also important to have coaches and assessors who are comfortable working with technology and evaluating behavior via the internet (e.g., web cam) or telephone. We have found that the population of skilled professionals is growing exponentially and that there are more and more developmental interventions that can be successfully supported by remote professionals.

Time and cost are other important considerations. While the cost required to completely customize and implement a TEAC may be greater initially, in general, the cost to run the center should be significantly less than a traditional center. There are relatively low to no costs required to administer the intervention, there is no travel expense, and there are generally no set-up expenses since participants are able to access the development platform from their offices, homes, or anywhere on the road that has a computer and an Internet connection. So while the intervention is less expensive to administer, it is also quicker to deploy and should require significantly less time from participants overall since there is no need to travel or leave the office for large periods of time. TEACs also tend to be of much shorter duration than traditional centers, while they may span more days than a traditional assessment center they are significantly shorter within each day running approximately 3.5 to 5.5 hours a day. We believe this is the per-day threshold of tolerance for a participant being assessed in a virtual environment.

Implementation Questions to Determine if Technology is Right

- Is a technology-enhanced simulation robust enough for the program's goals? Can the critical competencies be measured using technology?
- Is working virtually a relevant environment?
- Are there coaches and assessors who are comfortable with technology and evaluating behavior via internet or phone with reduced reliance on visuals?
- Is there a need for a low drag intervention, one that limits time away from work?
- Are the necessary technology resources available to run and maintain the program? Computers? Internet? Phones? Video? Skype?

• Are there financial resources available upfront for technology implementation with reduced ongoing assessment costs?

POST-IMPLEMENTATION CONSIDERATIONS

The differences between a traditional and technology-enhanced development center are possibly less significant in the post-implementation phase. That is, in part, because traditional centers have started to migrate toward more virtual elements in the follow-through aspects of reporting, coaching, and development planning (e.g., feedback meetings via telephone). However, if the simulation is robust enough to gather the needed data and nothing of great value is being left behind as it relates to important competencies of the role or for developmental insight, then a technology-enhanced development center is likely to be just as valuable. In fact, if learning is enhanced by having multiple stakeholders (assessors, coaches, managers, or peers) involved in the data aggregation, feedback, or development planning, then technology can actually enhance the functioning of the overall program and program goals. If there are skilled assessors and coaches who are comfortable providing feedback and coaching from a distance, and the organization places as much value on these exchanges as they do in face-to-face meetings and views them as credible sources of information, then again, technology can serve to enhance the program and reduce the costs. Additionally, technology is generally a huge asset in the post assessment phase since it facilitates data transmission, the dissemination of feedback information, and the collection of program evaluation metrics.

Post-implementation Questions to Determine if Technology is Right

• Are participants comfortable with other than face-to-face feedback and coaching?

• Will the credibility of the feedback and coaching messages be acceptable virtually?

• Is there a need for remote access to results and reports across multiple stakeholders?

• Is there a need to collect post-assessment evaluation data?

Steps for Developing and Implementing a Developmental Assessment Center

So what does it take to develop a typical assessment center? Recognizing that not all assessment centers are the same, and in fact there can be wide variations in the centers, the following steps outline a general process for the development of an assessment center that can apply to most centers.

Phase 1: Scoping and Planning

• *Identify an advisory board and keep them involved.* Identify and use an advisory board of key stakeholders. By engaging key stakeholders from the beginning, support will be gained, as will the benefits of increased insight into the organization and the targeted jobs or job families. In addition, an advisory board can help drive the new program and promote internal buy-in. The advisory board should meet after key milestones to discuss deliverables, successes, possible obstacles, and next steps.

• *Establish goals.* The design of a high-quality development program begins with consideration of an organization's broader business strategy and an analysis of the kind of talent the company will need to execute it. Aligning a development program with business strategy not only helps identify the right people, but also enables a company to identify program goals with greater specificity and develop leading indicators to measure progress. Before designing and scoping an assessment center, the goals, objectives, and policies for the assessment center must be established, along with the measures of success. The measures of success can then guide the metrics that are collected and reported and are especially critical to be able to determine the assessment center's return on investment and ultimate sustainability.

It is imperative that clear guidelines be established for assessment center usage and that a function, office, or individual be responsible and accountable for enforcing adherence. As a case in point, a developmental assessment center should not influence other human resources policies such as promotion, appraisal, salary grade, and so on, unless this usage has been communicated to participants prior to the center. Related to this issue is the determination of who has access to the results, what type of results (e.g., ratings, reports, development plans, personality test scores, etc.) and how long the data remains valid. As part of assessment center implementation, standard practice is to communicate the purpose, process, and expected outcomes of the assessment center to participants. For the assessment to be seen as valid and useful it is very important that rules for usage, access to data, and purpose are transparent and applied consistently.

• *Determine appetite for internal assessment participation.* As part of this scoping phase, it is helpful to establish the level of internal organizational support for the assessment itself. This refers to several elements of support including communication, administration, serving as assessors or coaches, helping with development planning or training. This is often facilitated through a formal role and responsibility review and a sign-off document.

• *Determine who is eligible for participation.* A process to determine who can participate should be determined. In the case of a development center, development may be a privilege that is offered to high potential talent or to an area of a company undergoing significant changes. Generally speaking, developmental assessment centers are used to elevate skills and learning and are not remediation. Whatever mechanism is used to invite participants, it must be viewed as fair and consistent with organizational goals.

• *Determine physical resources.* Although this may appear of small relevance, it is actually a very significant component of a successful scoping exercise. The questions here concern whether the center will be physical (i.e., traditional, face-to-face, on-site), virtual, or a hybrid of the two approaches. Decisions have to be made as to whether people will leave their offices to participate or stay at their desks? Will people work from a central location or work from wherever it is most convenient? Will there be a need for conference-like facilities, computers, printers, Internet connections? Will the assessment center require on-site administrators, virtual assistants, or even a helpdesk service?

• *Determine existing internal development activities.* A powerful connection between the outcomes of a development center and the participant's actual work environment is to tie them together with knowledge of the available internal development activities and resources, and access to them. This can help participants further develop their skills after the center and provide support to coaches when they direct assessment graduates to existing internal development resources. Additionally, it needs to be determined whether management will play any role in supporting developmental activities with mentoring, providing access to resources, introductions to others, or even through the removal of roadblocks.

Phase 2: Development of the Center

• *Job analysis.* Determine the dimensions or competencies to be developed by conducting a thorough job analysis. For the greatest impact and validity it is important to include a representative sample of job incumbents, managers, and any other relevant subject matter experts. The job analysis process should explore key responsibilities, competencies, and skills needed to be successful in the role(s) identified, changes in the industry that may impact responsibilities and competencies, and the impact of those changes on future skills and competencies. If a decision is made to implement a TEAC, then the competencies chosen need to be assessable without the traditional face-to-face interaction. Finally, the job analysis process can help to inform the assessment center developers of important, typical, and or frequent on-the-job situations or scenarios that can be used to build the simulation. Once the job analysis is complete, it may be necessary to identify the competencies of interest for the purposes of the assessment center since it is likely that there are more competencies identified than are reasonable to assess. Again, it is important to refer back to the assessment goals to choose appropriate competencies. If it is strictly for development then it is necessary to choose only competencies that are developable and not "cost of admission" competencies or even personality traits, or other attributes.

• *Design the assessment center exercises.* To guide the design and ensure that each competency is adequately represented or assessed, an assessment plan should be created. The dimensions targeted should be matched with the best assessment tool or exercise to measure or observe the targeted dimensions as identified in the job analysis. The plan should include multiple opportunities (i.e., exercises or activities) for the participant to demonstrate each of the targeted skill areas. A choice needs to be made as to whether to use an off-the-shelf assessment center or build one customized for the organization. Deciding whether to use an off-the-shelf assessment or develop a customized one depends on a variety of factors, which include whether there are available assessments that will be acceptable to the target population (e.g., feel realistic and representative of the organization and or role(s) being assessed) and are also useful for measuring or developing the targeted competencies. It is our experience that the

desire for high fidelity assessments is higher than that for off-the-shelf assessments; however this may vary by industry or job level. Often clients want to use a simulation that is similar to their organization and has the same look, feel, and cultural fit. There is a feeling that in order to be accepted by participants as a meaningful developmental experience it needs to "feel" real and perform similar to their own world. We have also witnessed a trend toward using customized assessments as a means to introduce and promote a new culture in an organization. However, the development of customized simulations can be expensive and time consuming. Alternatively, there may be opportunities to leverage an off-the-shelf assessment and customize it to fit unique organizational needs. Development of a fully customized assessment center may provide opportunity for leveraging the customization efforts as the developed simulations can be used as a springboard for multiple assessments or a suite of assessment centers all within the same simulated organization or context, yet able to reach varied job families and titles.

- *Develop evaluation forms.* Given that behavior needs to be observed, recorded, and scored, evaluation forms need to be created that can be completed by assessors at the conclusion of each exercise. The forms should be specific enough for other assessors to identify and understand the behaviors to be evaluated and the actual behaviors exhibited. At a minimum the targeted dimensions should be rated and assessors should identify key behaviors that support their ratings. Evaluation forms may also include overall ratings of exercises.
- *Design prework and postwork.* A component of the assessment center design is to identify elements of the process that will be administered as prework and postwork. Prework affords an opportunity to launch supplemental activities that support the overall developmental initiative. For example, 360-feedback surveys, personality profiles, or career accomplishment inventories or interviews may serve to support the assessment and development goals. Additionally from a communication perspective, new competency models, the organization's perspective on career development, or overall development strategies may be distributed at this point. A common practice is to deliver prework information about the simulated world and organization the participants are to enter. This serves to familiarize participants with the simulation and expectations for performance. This can go a long way toward reducing stress and anxiety about attending an assessment or development center.

Postwork decisions need to be made regarding how and when feedback will be delivered and by whom. Additional program components need to be determined, such as whether there will be any ongoing or follow-up processes such as continued development planning or coaching, and/or whether any participant data will be collected for program evaluation purposes.

- *Establish content validity.* After the assessment center is built, content validity must be established. This involves working with subject matter experts to obtain their feedback on simulation clarity, technical accuracy, cultural sensitivity, and appropriateness for the target organization and jobs. It is also imperative to determine the job relatedness of each exercise and the exercises' representations of critical task areas and competencies. The subject matter expert group should also confirm the behavioral standards for evaluation. A suggestion is to have the subject matter experts anchor each performance level rating (e.g., Significant Strength, Strength, Development Needed, Significant Development needed) with examples of behaviors. An outcome of this subject matter expert process is a behaviorally anchored rating scale tied to each critical dimension and properly calibrated to guide assessors in their evaluations and subsequent feedback.
- *Design a simulation interpretation guide.* A simulation interpretation guide describes the simulation, exercises, and core issues, and provides those charged with evaluating participant behavior in response to the assessment exercises and activities with scoring or rating guidelines. Generally the interconnectedness of the different exercises is explained and some possible and or logical participant behaviors are outlined. If there are expectations of particular participant responses or actions, these are included as well. A simulation interpretation guide can also serve as a way for the designers and builders of the assessment center simulation to communicate with the assessors about the simulation, how the story of the simulation from a chronological perspective unfolds, what competencies are being elicited, and how to draw conclusions from the participant's behavior.
- *Establish the schedule for each assessment center.* An assessment center can be compared to a well choreographed dance. The activities within a center

require careful scheduling and coordination to ensure everyone is at the right place, at the right time, with the right resources available. This is especially important since assessors are often assessing more than one participant at a time and you want to maximize both their time and that of each participant. When considering schedules you want to avoid participant downtime and create a seamless and active experience for the participants.

- *Train assessors and administrators.* Training must be provided to everyone involved in the center (e.g., assessors, administrators, role-players). The content of the training may include process logistics, roles and responsibilities, registration and administrative processes, and much more, depending on what is needed to support the center. No matter what the center, training assessor/coaches is key to the center's success. Eurich et al. (2009) reviewed the content of assessor training across a variety of organizations resulting in a benchmarking study of assessment center practices in the United States. What is striking is that based on our experiences and this benchmarking study of assessor training, general practice does not emphasize training coaches in feedback and coaching, yet feedback and coaching are the essential elements in an assessment center used for development. Indeed it is what happens after the assessment center that has the most significant impact on a participant's development. While this is beyond the scope of this chapter, we highly recommend an increased emphasis on training assessors in how to provide feedback and coach participants who have taken part in a development center.

The success of an assessment center is a combination of the strength of the design and the assessors supporting the center. Assessors are typically trained for 1–2 days in order to ensure the success of the center. During the training they are taught about each exercise they will be evaluating and their roles for the exercise. They also learn about the dimensions being assessed, the evaluation processes to be used, and the standards for ratings. During the training they ideally should also be prepared for the coaching and feedback conversation with the participant. This is in addition to the more general training they must have as experts in assessment and coaching.

Phase 3: Implementing an Assessment Center for Development

- *Conduct a pilot.* A pilot should be conducted to make sure the schedules, exercises, and evaluations are all working as planned. The ideal size for a pilot depends on the intended audience and usage. It is important to ensure that the participants in the pilot represent a sample of the intended audience and are able to communicate valuable, honest feedback. Feedback should be sought from the assessor/coaches, administrators, participants, and even the participant's managers or other stakeholders where appropriate. Using information from the pilot, modifications may be made. When deciding on what modifications to implement, care should be used in differentiating between what is necessary based on the overall goals and metrics for success and what are considered "nice to haves" but not essential. As in all things, a balance needs to be reached that provides for the highest quality center (i.e., successfully allows participants to demonstrate targeted competencies and or behaviors) at the right price (i.e., time and resource costs).
- *Begin running assessments and monitoring the program.* Once assessments begin it is recommended that ongoing quality checks be instituted. Quality checks can take a variety of forms and include but are not limited to the following metrics: participant, stakeholder, and assessor reactions and feedback; evaluation of assessor ratings and checks for assessor bias; review of written reports; and observation of role-plays. Monitoring should also include reviews of outcomes such as the relationship to skill improvement, management involvement in development, engagement, retention, and performance. Other metrics should be considered that address the original organizational goals as well as answer questions about the return on investment. A final element of ongoing monitoring is to implement a process for ensuring that the policy and process decisions are being adhered to and that a lack of standardization or looseness of policy does not occur over time.

Types of Assessment Centers and Recent Applications for Adult Learning

Assessment centers are powerful tools. Thinking of the possible ways to leverage assessment center processes beyond the historical and traditional in-person assessment center opens up a new world of opportunity in adult development. We will review three successful and innovative programs that use nontraditional assessment center methodology for

leadership development. Each of these centers maximizes the use of technology to increase efficiency and scale, decrease costs, and increase the fidelity of the intervention and the engagement of participants. Our purpose for including each example is to demonstrate that there is no one best way to structure an assessment center. Each center also demonstrates the power of technology in the assessment center method. All of the centers were developed using the steps described above. The first program uses assessment technology to deliver a more traditional assessment used to determine next-level development needs with an emphasis on feedback and coaching. The second center allows participants to work at their own pace and at times of their choosing and provides immediate and consolidated feedback, as well as opportunities to practice new skills over a period of seven weeks. The third center matches e-learning with assessment simulations for skill practice. After each simulation, the assessor/coach provides developmental recommendations based on each specific targeted skill area and the learnings that should have occurred. These three diverse centers yielded valuable information about the utility of assessment centers. While not all the data collected on each center is parallel, there are opportunities to see trends in the impact of each. Examples of some of the key outcomes include:

- Participants and supervisors find value in the process
- Assessments increased skill development
- The centers motivated additional development actions
- Participation increased engagement and job understanding
- There is demonstrated impact on both performance and retention

A Development Center to Prepare the Next-Level Talent Pool

A telecomm organization implemented a virtual assessment center to identify outstanding talent and provide guided development for second-level managers. Web technology was used to create scalable, cost-effective, engaging, and highly realistic "day-in-the-life" job tryouts that were locally delivered, while internal and external assessors participated and fulfilled their roles from multiple locations across the United States as well as in India. The program comprised multiple steps including prework, assessment, and verbal and written feedback with developmental guidance.

PREWORK

Nominees received a computer generated invitation and completed prework online during the 2 weeks leading up to the assessment center. Each nominee was asked to complete an online career accomplishment record (CAR), which included self-ratings on each of the measured assessment competencies critical for success in the targeted role of Director and reflections on their career aspirations and goals. The CAR was another tool used to facilitate coaching and developmental planning discussions. Participants also had an opportunity to review background information about the Director role, the simulated organization, personnel, and other important background information prior to the assessment.

SIMULATION

Participants engaged in a 4-hour simulation of the Director position. Stimuli material and exercises were developed based on interviews and evaluated to ensure representation of the targeted Director position. During the job simulation, participants engaged in an interactive, in-box environment, reviewing provided information, responding to e-mail, and providing business recommendations. participants also had scheduled and unexpected meetings with simulated peers, direct reports, administrative support, and supervisors.

DEBRIEF AND INTEGRATION

At the end of the simulation, the participant met with an assessor/coach for a debrief interview to discuss the rationale for and perceived outcomes of his/her decisions. Later in the day, three assessors reviewed the day's activities and evaluations and provided individual ratings for each critical competency. An integration discussion among the assessors was facilitated by a lead assessor to reach consensus on competency ratings and overall readiness. This process was also supported using Internet-based flipcharts and conference calling.

COACHING AND FEEDBACK

Participants were sent flash reports summarizing the consensus ratings. The flash reports were followed by feedback and coaching discussions with assessor/coaches. After the feedback coaching sessions, detailed written feedback reports with specific behavioral examples summarizing the evidence for the ratings as well as specific developmental activity recommendations were sent.

Data from the program show that:

- 98% of the participants found the experience useful for identifying and prioritizing development opportunities
- 92% of the participants place a high value on participating in the assessment
- 62% of the participants found the experience more valuable than all other development programs.

A Development Center as a Tool to Develop Key Leadership Skills

Using assessment center methodology, a program was designed to address key leadership behaviors and deliver a high impact development experience to individuals in mid- to senior-level leadership roles. The client had a need for in-depth assessment and a meaningful development experience that had a global reach, high touch, and would not sacrifice participants' billable hours as the target group could not leave work to attend a program and lose potential client revenue.

The program that was developed placed participants in a management role in a fully realized simulated organization. Once enrolled, participants were able to fully engage in the simulation at their convenience. The program was developed to be as flexible as possible and not dictate set times for participation. We created as close to an always-on system as we could that would allow true flexibility regarding everyone's ability to participate. Over seven weeks, participants alternated between "assessment" and "coaching" weeks:

- Prior to the assessment, participants completed a background questionnaire informing the coach of his/her career goals and goals for the program as well as Honey and Mumford's (2006) Learning Styles Inventory.
- In assessment weeks, the participants played the role of a leader in a fictitious, global organization and addressed challenges through
  - Telephone interactions with role players (portraying over 35 different characters representing, colleagues, reports, clients and senior management)
  - In-basket e-mail and voicemail interactions
  - Reports and other business documents
  - Extensive role-plays
- Each activity engaged in by participants during the assessment or simulation week (e.g., e-mail exchanges and role-plays) generated a feedback report.
- In coaching weeks, the participants had a debrief call with their personal coach. Based on the integration of the full range of work done by the participant within the assessment, coaches provided feedback to participants and discussed learning, opportunities for development, and ways to transfer insights and behaviors back to the workplace.

The assessment program was delivered via an online platform that allowed for learner-directed access to additional development content such as e-learning modules, self-assessment, and journaling tools to help participants process their experiences. The outcome after 7 weeks was a development plan focusing on key areas for improvement as established over the learning module weeks.

Data from the post-program reaction survey showed that the program was well received by the participants:

- 100% of participants agreed that the program was flexible, easy to use, and found value in their feedback calls with their coach
- 93% of participants agreed that their experiences will help them in their current role
- 93% of the participants would recommend the program to others.

Of the areas each participant targeted for development during the program:

- 100% of the participants reported improving in at least one of the three targeted areas
- 89% of the participants reported improving in at least two of the three targeted areas
- 73% of the participants reported improving in all three targeted areas.

Using Assessment Center Methodology as a Teaching Tool

Over the course of three weeks, participants in this example spent time learning about key facets of leadership via an online, interactive experience. This developmental assessment center started with a mix of didactic forms of e-learning and games to practice newly learned concepts, then through simple simulations the participants faced realistic skill challenges to practice newly learned leadership skills. The scenarios were adaptive to the participants' skill levels and could be "ratcheted up or ratcheted down" as necessary. Coaches partnered with each participant on each skill to discuss his/her activities, provided the participant with specific behavioral

feedback, helped plan for future development, and helped the participant to apply the new skills back at work. The program occurred over a 3-week period.

WEEK ONE

Participants began the program with a 1-hour introductory module focused on a model of leadership. Following a self-assessment skill survey, a background worksheet, and a meeting with their manager, participants engaged in four of six key leadership skill modules identified as developmental gaps.

WEEKS TWO AND THREE

Participants explored two skills per week. Each module followed the following format:

- Interactive digital e-learning: participants experienced a mix of interactive learning and games, on-demand pop-ups with information, and a portfolio of reference materials (including simulation reference materials that could be printed and used during the simulation).
- Business simulation: participants completed a related business simulation that includes an e-mail inbox, voicemail, a calendar, and other important information. During the simulations, the participants assumed the role of a Project Team Leader. As a Project Team Leader, participants had an opportunity to practice their leadership skills as applied to a challenge related to the e-learning content.
- In a supportive environment, coaches provided targeted feedback that helped participants practice and master the specific skills taught in each module. Guided by the coach, participants had an opportunity to explore the outcomes and consequences of their actions and learned how to leverage strengths and address areas where development was needed. Participants were also coached on how to transfer their learned skills back to the job. As an outcome of the coaching conversations, each participant received written, skill-specific feedback and development activity suggestions, and was encouraged to continue working on his/her professional development.

Data from the post-program reaction survey shows that the program was well received by the participants:

- 100% of the participants agreed that the overall learning experience was positive
- 86% of the participants indicated that they believed the skills they developed based on their experience in the program will help them in their current role
- 90% of the participants indicated that they believed their experience will help them in their future role
- 90% of the participants were most satisfied with the role-play simulations and coaching

The program is still new and we will be conducting future postexperience follow-up measures.

Conclusion

Assessment centers continue to stand out as tool of choice for selection and development. As a developmental technique, assessment centers incorporate multiple elements that address a range of individual learning styles thus providing "something for everyone" and increasing the impact of the experience both during the center and once back at work. Perhaps the most salient characteristic of an assessment center for development is that the simulation itself (a necessary ingredient of an assessment center) can engage participants to perform behaviors, stretch themselves, and take chances in a simulated world with limited real-life implications but the opportunity to receive, fairly immediately, competency-based feedback. This chapter compared many traditional adult development approaches used in organizations with the blended learning approach inherent in a fully developed assessment center. The elements of an assessment center were defined and a step-by-step blueprint for designing, developing, and implementing an assessment center was presented based on best practices and the authors' own experiences. A series of questions were suggested for use in deciding whether to implement a TEAC. Three case studies were presented demonstrating the benefits of utilizing assessment center best practices and technology within a blended learning paradigm for senior-level development and skills training. Finally, some suggestions are offered for future research and practice. The practice of assessment centers has a long history that continues to evolve and today, more than 50 years after their beginning in American industry, they offer new and exciting possibilities for the future of adult development.

Future Directions

CONTINUE TO INNOVATE WAYS TO DEVELOP TALENT WITH MINIMAL TIME AWAY FROM WORK

Employees are facing an ever-greater pressure to produce as today's lean organizations expect more from less. The demands of organizations leave little

time for needed training and development. With today's lean organizations and high goals, learning will need to be scheduled to occur apart from regular work activities or at least so that they do not take employees away from regular work activities. To achieve this we must create new ways to develop talent without sacrificing learning quality.

Future assessment centers will no longer be the well-synchronized and -choreographed, time-specific scheduled activity of the past. Instead we expect to see more asynchronous participation allowing people to participate in assessment center activities within a specified amount of time at their own pace and from their chosen locations.

LEVERAGE TECHNOLOGY SOPHISTICATION

Advances in technology are rapid and extensive. The Web created the possibility for TEACs, and one can only suspect that future technological advances will support new applications and offer new opportunities. We hope to see new technologies that help increase the "touch" of TEACs by providing different approaches for distance feedback and coaching. This may be facilitated through improvements in videoconferencing quality, stability, or other means. It is interesting to consider how probable this is given the popularity and low cost of new hardware and software.

Another area that needs to be addressed is the role of group-based exercises in TEACs. At present there is less success with group exercises than individual role-plays given the difficulties of coordinating multiple participants remotely, using conference lines or VoIP technology, or integrating in videoconferencing with other activities. Until the Internet is further stabilized, bandwidth or "pipe" issues become more standard, and overall reliability of the information highway is increased throughout the world, it will be difficult to reliably integrate technology that requires greater bandwidth. It is our belief that this instability can lead to a lack of credibility in the assessment process if things break down during the assessment. A lack of credibility in the process can then lead to a greater chance that people will reject the results of the TEAC and fail to integrate the learning and feedback into their development goals.

Scheduling and administration has already been greatly streamlined and it is possible to support the full range of program logistics from participant, stakeholder, and assessor portals. While this eases the administrative burden and reduces costs, it would be interesting to determine whether there are other consequences related to participant completion rates, management follow-through, overall satisfaction with the program, and so on. Whenever something is easier, it is more likely to have positive outcomes in other areas as well.

Avatars are starting to appear in TEACs. We would contend that the use of avatars takes away from the high fidelity nature of the simulation and instead creates a gamelike environment similar to Second Life® or SimCity™. There is also a greater chance that the use of avatars within simulations will evolve simulations into situational judgment tests and not support the nine characteristics of an assessment center. However, research is needed to determine where and for what populations avatars might increase the fidelity of the simulation or increase the opportunities for assessment, learning, and development.

It seems obvious to note, but should be stated nonetheless, that the use of technology in assessment centers is a means to an end, and not an end in and of itself. As opportunities to include technology into assessments continue to grow, it will become increasingly necessary to challenge one's thinking and continually evaluate the potential benefits or distractions of additional technological elements. Just because something is possible, does not mean it should be done. We believe that technology should only include elements that already exist in the participant's world. For example, if video voicemail is not a current means of communication, then it should not be included in the simulated world. It is too easy to become enamored with the possibilities of adding to simulations and continuing to increase the fidelity and job relatedness of the virtual fictional world. The inclusion of technology should create advantages to assessment, realism, and the ability to elicit or observe relevant behaviors to gather additional data. If it does not serve the purpose intended, then it is may be best not to implement it. Beware of adding too many bells and whistles, since they are likely to only make noise.

NEED FOR MORE RESEARCH ON PRACTICE

In the field of assessment centers, research has fallen behind practice (Collins & Frame, 2010). In recent years there have been variations to assessment center practices representing strong practical and intuitive value, however with little known research. We are working to promote more scientist-practitioner collaborations in the field of assessment centers. We would like to see more research in the realm of assessment center design and process that practitioners can use to inform and/or improve the processes

currently used by organizations. There are many opportunities for real-world research in this area, some examples of needed answers include:

- Virtual assessment centers versus traditional assessment centers. What types of technology enhances assessment centers? Which detract? What is the impact of not having face-to-face contact in role-plays, coaching, and feedback sessions?
- How do integrated day-in-the-life simulations compare with multiple independent exercises? What advantages or disadvantages does each process carry?
- What are the advantages or disadvantages of organizational specific versus generic or off-the-shelf simulations?
- How do asynchronous assessments fare compared to more traditional assessment center scheduling? What impact does asynchronous participation have? Is there a benefit of having executives participate in exercises over a specified amount of time versus in a physical center?
- What is the optimal length of a traditional assessment center? What is the optimal length of a virtual center?
- What are the differences between ratings of recorded behavior versus live behavior? Is one more accurate than the other?

Finally, note that today's assessment centers were yesterday's future. Assessment center methodology has demonstrated that it is highly adaptable to technology, social change, and other external influences. We believe the future has no limits and look forward to the continued evolution of this powerful blended learning methodology.

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Notes

1 The term "competency modeling" is being used interchangeably with "job analysis," and "competencies" with "skills," even though the writers acknowledge that the development process for each is different (Harris, 1998).

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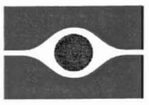

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