TEN Youth: Unlocking Enterprise Growth by Focusing on the Fortune at the Bottom of the Talent Pyramid

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In 2013, the business environment in many developed economies remains sluggish. Macro fiscal and monetary support notwithstanding, business enterprises in these economies are still awaiting a robust and confident recovery in demand. Understandably, enterprises in such circumstances have focused on lowering costs and ensuring near-term profitability while placing growth and investment on the back burner. As a result, unemployment in general, and youth unemployment in particular, remains high.

In emerging economies, on the other hand, enterprises face a different growth challenge. In Brazil, China, Indonesia, India, Nigeria, and Turkey as elsewhere, enterprise growth and expansion is bottlenecked not so much by demand but by supply—specifically, the supply of workers with mid-level skills.[1] In such economies one hears of a talent drought.

Consider the case of the Dutch multinational, Philips, which some years ago secured a substantial business deal from the Zambian government. Philips was asked to provide medical equipment and technical expertise as part of a government program to improve hospital infrastructure and to make more advanced diagnostic services available to patients.

As the project matured and implementation proceeded, a major challenge emerged: there were not enough skilled radiologists, nurses, and other technical

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personnel in the local workforce to actually operate the new equipment from Philips.

Philips and its partners eventually trained more than 300 radiographers and radiologists. But as J. J. van Dongen, senior vice president for Philips Africa, observed, "If we don't have trained people to operate our machinery, then we're not doing the right job for our clients." While commenting on the huge market potential of the African continent, which includes six of the world's ten fastest-growing economies, he cautioned: "If you want to be involved in the African economy, you have to … contribute to the development of skills in Africa."[2]

The skills shortage experienced by Philips in Zambia is endemic across many emerging economies. Growth in the mining industries in Brazil[3] and Mongolia[4] has led to shortages, not only of engineers and technicians but of drivers and laborers as well. Likewise, the maquila industry along Mexico's northern border is reported to miss out on growth opportunities because it is difficult for enterprises to find experienced, bilingual sales people.[5] The outsourcing boom in India has slowed in recent years, in part because of concerns about the quality of graduates from the nation's technical and university system.[6] To be sure, the shortage of talent is present even in developed economies' growth sectors (such as the U.S. and

Australian energy sector) and where an aging demographic means that skilled workers are retiring faster than they can be replaced.

Meanwhile, millions of youth around the world confront unemployment.[7] Youth have several factors that work against them in the search for employment. They are at the bottom of the talent pyramid because, understandably, most of them lack work experience. A substantial proportion do not have a college degree. Even among those with a college degree only a few have work-ready skills. Last but not least, the labor market—a mystery even to specialists and veterans—is a maze to youth. As numerous observers have lamented: youth unemployment is a grave and present danger, especially because it is known to have enduring, negative effects in terms of future employability, lifetime earnings, and health, not to mention dignity, life satisfaction, and stability in society.

In our view, which we present in this article, the dual problems of an enterprise talent shortage and youth unemployment may be addressed in a bold and fundamentally unified manner. After all, enterprises seeking to realize business growth must have an appropriately skilled and productive workforce. Moreover communities and nations seeking to improve the lives of their youth must attract fast-growing companies that bring more and better jobs. We first review traditional approaches to this vexing challenge, and then we propose a hybrid approach that we call TEN Youth. As we hope to show, especially in emerging economies, enterprises battling a talent shortage can unblock growth by focusing on the potential fortune at the bottom of the talent pyramid. In the process, they will impart skills and employment to millions of youth.

TRADITIONAL APPROACHES

The talent shortage is not a new challenge, and one may outline at least three traditional approaches to tackling it. One approach has been to call for better educational policies, including co-developing curricula with industry. In many countries, too many high school and college graduates are deemed "not job-ready." Despite having formal qualifications, young people may lack job skills that are in current demand among employers, and they may lack good habits for the workplace. Casual observation corroborates this complaint. It is evident that greater attention to education pays substantial dividends: a study of more than 100 countries over the period 1960-1995 reports a strong correlation between the extent and quality of education—especially science education—and sustained levels of GDP growth.[8] An example is the case of South Korea, where 40 years of investments in educational access, quality, and relevance to industry has helped transform that country to one of the most highly developed in the world.[9] Educational reform, however, is a formidable task. It is not only challenging to coordinate initiatives by governments and educational institutions with the changing needs of industry, but education, labor, and commerce ministries tend to focus on their own distinct domains and undertake initiatives in separate silos. Also, the education sector in many countries is insufficiently funded and less than flexible. Accordingly, while this approach has fundamental merit, its realization depends more on politics than on policy.

A second approach is for enterprises to engage in the "war for talent." Despite the rigidities just discussed, some percentage of the talent coming out of our traditional educational systems is able and excellent. In many economies, then, enterprises pursue individuals in the top quartile of their young labor pool. This creates an employment bias toward top college graduates and toward those with work experience. Rising wage premiums, turnover and retention challenges, and lower development of firm-specific skills are all known ill effects. In this approach, enterprises face not only a creeping competitiveness challenge (because of rising personnel costs) but also, more fundamentally, the overall shortage of job-ready-talent still blocks growth.

A third approach is the dual apprenticeship system practiced in Germanic countries (Austria, Germany, Switzerland). Considered a "gold standard," this model involves an ecosystem in which schools, local industry, chambers of commerce, state and local government, and teachers and students all work together in a historically coordinated and regulated manner on the development of young but job-ready vocational talent. The system is effective both in terms of high productivity and enviably low levels of youth unemployment. Big hurdles for the diffusion of this system include the considerable outlay in terms of money (thousands and sometimes tens of thousands of euros per year per candidate), time (because a candidate is in the program for two to four years), regulation, and collective action. The dual apprenticeship system is clearly an effective but high-cost, high-touch approach to unblocking the skills shortage, profitable enterprise growth, and youth

employment. In a heavy industry context where capital equipment and mistakes tend to be costly, and where output is in highly engineered products, it makes good sense to invest proportionally in human capital.

In emerging economies though, where growth tends to be in service sectors (including construction, education, financial services, health care, information technology, restaurants and hospitality, real estate, retail, transportation, and utilities) and in basic manufacturing, we need and should be able to address the talent shortage and unblock enterprise growth with a leaner and more attractive model.

Accordingly, drawing inspiration from this third approach, we outline below a more affordable, appropriate, and retention-reinforced model. We have been developing the model that we refer to as TEN Youth, and the remainder of this article describes our TEN Youth reflections and work. While the specifics are less important, we hope that the principles and approach embodied in TEN will be illuminating.

TEN Youth

TEN Youth stands for the Talent Enterprises Need: Youth. It is an initiative that grew out of the World Economic Forum's Network of Global Agenda Councils – specifically the Global Agenda Council on Emerging Multinationals, and the Council on Youth Employment. As we depict in Figure 1, TEN Youth is by operated by enterprise for enterprise. In other words, enterprise engagement is a key design element. Another design element revolves around conceptualizing and categorizing essential skills (both job and behavioral skills). A third design element revolves around essential (lean) apprenticeship and essential (lean) mentoring modules. The essential apprenticeship module imparts job skills (i.e., functional skills such as web design), while the essential mentoring module fosters behavioral skills (such as reliability and flexibility). For each of these two modules, TEN Youth proposes a scalable protocol that enterprises may adopt relatively easily. While the protocol offers a detailed template, it can and must be adapted to the national, sectoral, and demographic (e.g., gender) context.

Before proceeding further, it is useful to bear in mind that enterprises express four major concerns vis-à-vis apprenticeship and mentoring. They worry about the cost in terms of money and time. They worry about post-training retention. Most firms (especially mid-sized and small firms) lack knowledge of and experience with apprenticeship and mentoring. Finally, employer sentiments sometimes reflect a distrust of youth in terms of work readiness and maturity.

When we designed TEN Youth, we factored in precisely these concerns. First, for enterprises, TEN Youth is intended to be substantially cheaper and faster than traditional apprenticeship approaches. By focusing on specific skills rather than broad-based vocational training, TEN Youth foresees apprenticeships lasting weeks or months rather than years. In addition, the aim is to have trainees productive within the first year. TEN Youth will encourage enterprises to use technology and work with external partners for the theory portion of the training. Finally the

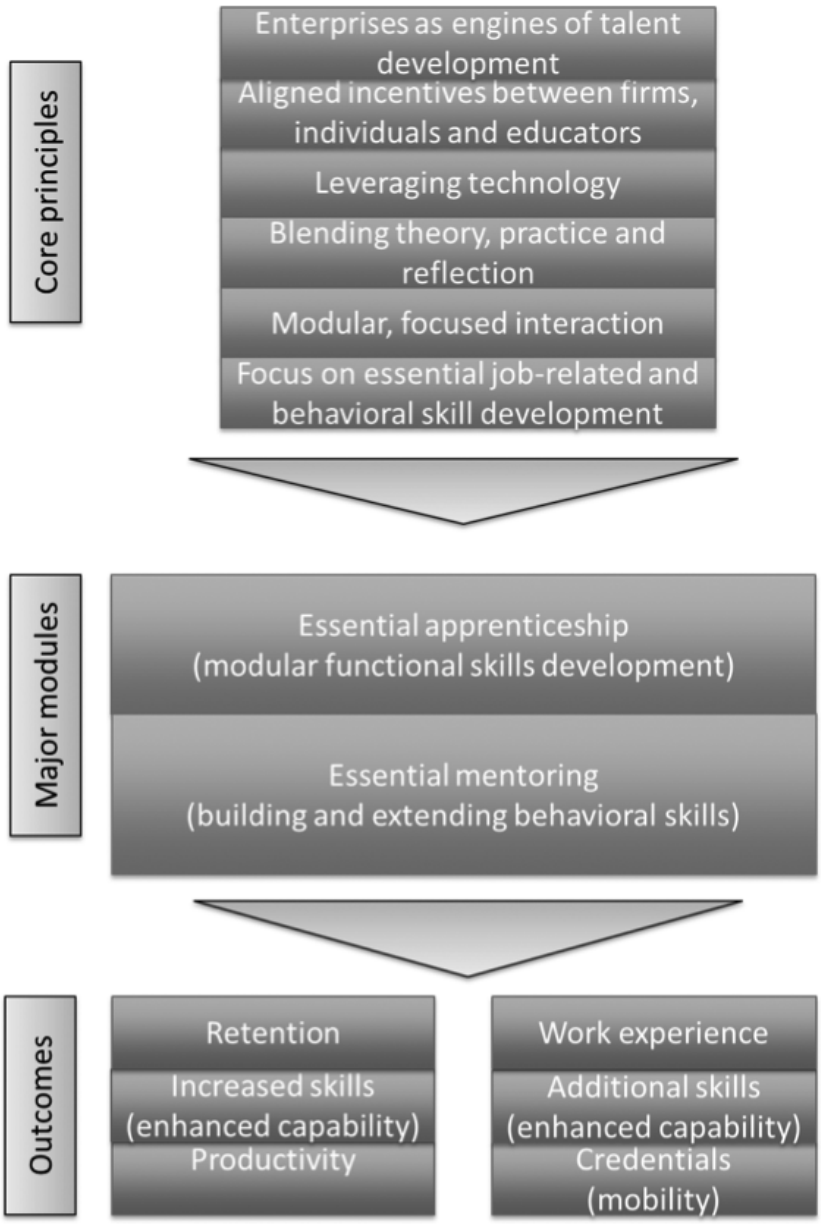

Figure 1. TEN Youth Principles, Modules, and Outcomes

design allows for trainees to help pay for this training. Second, by including a mentoring module at its core, TEN Youth aims to foster important behavioral skills and aid employee retention. Third, to make adoption feasible by mid-sized and even small enterprises, TEN Youth delivers scalable apprenticeship and mentoring protocols. This means enterprises will not have to reinvent the wheel. Last but not

least, to address the issue of trust, TEN Youth includes up-front screening both for fundamental skills (such as literacy, numeracy, and language) and for the motivation to succeed.

All young people, even those with higher-level degrees, need practical skills and more opportunity to develop them through experience in the workplace. Young people want to become productive and valued employees in order to earn enough pay to achieve financial autonomy. And young people want to be socially and professionally mobile—able to move up the rungs of a career and retain the ability to move, when necessary, from employer to employer. These elements constitute what young people describe as a "real job" that provides a source of dignity in work.

A YOUTH SKILLS FRAMEWORK

If enterprises are to deepen and develop youth talent, they must focus on those skills that are essential to value creation by young employees. Accordingly, based on both the established literature and discussions with a range of employers, we conceptualized a skills framework that includes both job-related skills and behavioral skills. Job-related skills are specific, and often rapidly evolving, technical requirements for a given position. Behavioral skills encompass the personal and interpersonal abilities that are indispensable for productivity and success in the workplace.

Job-related skills[10] fall into three categories:

- Fundamental skills include literacy, numeracy, digital literacy, and language skills. We assume that these skills are developed within the primary and secondary education system. Possession of these skills represents a basic level of qualification for participants in the TEN Youth model. TEN Youth is not aimed at the development of fundamental skills, and in fact intends to make it easier for employers to identify applicants who already have these skills.
- Functional skills relate to the ability to do practical tasks informed by technical knowledge and are highly job-specific. For example, a computer technician must have specific functional skills in order to troubleshoot a hardware problem; a nurse must have a distinct set of functional skills for dressing a wound. These skills are usually developed by postsecondary vocational education and training. TEN Youth's essential apprenticeship approach aims to develop functional skills that are immediately relevant to the productivity needs of an enterprise, but not to provide a comprehensive vocational education.
- Firm-specific skills relate to an individual firm's actual systems, equipment, and operating procedures. They include, for example, knowing how to process a new insurance claim or how to invoice a client using the company's computer system. We assume that these skills will be developed gradually through on-boarding processes and on-the-job training at the firm.

Employers are increasingly acknowledging that that behavioral skills are as important as job-related skills. For many positions in service industries with sig-

nificant customer interaction, behavioral skills may in fact constitute the most important source of value creation, as they ensure a positive engagement between enterprise and client.

Based on employer interviews, TEN Youth focuses on a subset of behavioral skills that are both important in the workplace and being malleable through training and mentoring interventions. We organize these in four categories:

- Reliability—being hard-working, accountable, organized, persistent, and honest; following rules and keeping commitments; having integrity and good follow-through.[11]
- Flexibility—being adaptive, responsive, and cooperative.[12]
- Future orientation—being motivated, enthusiastic; having self-control and being able to do willful planning and sustain deferred gratification.[13]
- Problem solving—being able to think critically and make decisions; having good communication and cooperation skills.[14]

Each of these skills categories correlates with a specific element of productivity and a specific kind of training/mentoring intervention. In the discussion below of apprenticeship and mentoring, we outline talent development approaches that may be readily adopted by enterprises to address these elements of an employee's overall skills portfolio.

ESSENTIAL APPRENTICESHIP

Essential apprenticeship focuses on developing functional skills that are immediately relevant to the productivity and growth of an enterprise. Data from innovative training programs around the world show that many of these skills can be developed or extended at a relatively low cost and within a relatively short time frame.[15] The goal is to help a wider range of enterprises to efficiently overcome skills barriers to growth and expansion, while simultaneously helping more young people to acquire economically relevant skills and transferable credentials.

To avoid the high costs associated with traditional models of apprenticeship, essential apprenticeship is based on simple and pragmatic links between enterprises and external training providers; is focused on flexible, modular training aimed at keeping pace with rapidly evolving talent requirements; and is designed to permit enterprises to quickly recoup their training investment (typically in less than one year for each apprentice).

The core principles of essential apprenticeship

Essential apprenticeship isolates key success factors of existing training and apprenticeship initiatives in order to provide practical guidance to enterprises interested in creating such programs on their own or in partnership with external trainers. The following seven elements represent the "core" characteristics of essential apprenticeship:

- Identify and develop only essential functional skills (as opposed to fundamental, firm-specific, or broader vocational skills).[16]

- Train only for mid-level skills—those that can be developed within a relatively short period of time among apprentices who start with a solid base of literacy, numeracy, and other fundamental skills.
- Condense the path to productivity by creating a distinct set of training modules that can be delivered in a period of days, weeks, or months, rather than years.
- Blend practice and theory. The theory portion may be provided by an external training partner and may be financed by the apprentice, with or without a subsidy.
- Leverage technology for online learning and web-based task tracking and administration to customize the apprentice's experience and to lower costs.[17]
- Certify success and create a "career passport" through testing, assessment, and delivery of a marketable credential representing an industry standard for the targeted set of skills.
- Balance incentives between the enterprise, individual, and third-party providers. The investment of time, effort and resources is recognized through appropriate wages to the individual during the apprenticeship period, shared investments of capital, and the promise of a rapid transition into a real job with real pay once the value of the training has been realized by the enterprise.

Templates for success—innovative training programs around the world

Several of the essential apprenticeship ideas we outlined above are embodied in training-for-employment initiatives operating around the globe:

- Education for Employment (EFE) operates in seven countries across the Middle East and North Africa, working with local enterprises to create recruitment and training programs that address skills bottlenecks. EFE secures hiring commitments in advance from enterprises. It recruits among unemployed young people (thereby improving access to underutilized human resources) and provides them with short-term, highly customized training specific to the needs of the enterprise. In this way EFE acts as an external resource for employers and creates tailored apprenticeship programs for its employer-clients. EFE's programs provide both job-related and behavioral skills training. To date, EFE has worked with more than 900 firms and expects to train 10,000 young people in 2013.[18]
- In Brazil, a mining company digging in a previously untapped region faced the challenge of grooming a local work force that could operate and maintain sophisticated mining equipment. The cost of importing skilled labor was becoming prohibitive for the company. Instead, the company developed an intensive, nine-month course for local young people who were eager to obtain sustainable jobs as welders, diesel repairers, equipment operators, and other mid-level skilled occupations. Classes were taught by experienced mechanics and engineers. 151 students, mostly in their 20s, graduated from the first of these classes in January, 2013. 22% of trainees were women. Virtually all of the graduates were hired by the mining company or its contractors. While developing this program represented a significant investment, the company anticipated a strong econom-

ic return from a reduction in wage inflation pressures and from the retention of loyal workers.[19]

- In Kenya, which has one of the fastest growing IT sectors in Africa, local computer and IT companies are partnering with Microsoft and an organization called NETHope to create a shared apprenticeship program for IT workers. Applicants undergo a rigorous selection process for an intensive training course and then are placed in internships with local firms. This intervention will help mitigate skills shortages in Kenya's IT industry, which is attracting foreign investment and growing at a rate of 20 percent per year.[20]

Some promising examples from the developed world (in the following three cases in the U.S.) offer lessons that may be broadly applicable in a wide range of economies:

- Year Up is a U.S.-based social enterprise that aims to close the "opportunity divide" and improve career outcomes for young people who may otherwise be headed for low-skill occupations. Focusing specifically on financial and IT positions, Year Up creates programs that link education and work more strongly. Year Up provides participants with six months of classroom-based training in technical and professional skills, followed by a six-month internship at a participating enterprise's workplace. Since its founding in 2000, Year Up has served more than 7,500 young adults; 84 percent of graduates have either been given employment, at an average wage of $30,000 per year, or are enrolled in further education; and 90 percent of corporate partners would recommend Year Up as a source of qualified workers. Year Up is actively engaged in pilot projects to embed its model within the U.S. community college system, with the goal of making internship and apprenticeship a standard component of the community college experience.[21]
- Dev Bootcamp is a San Francisco- and Chicago-based training program that describes itself as "apprenticeship on steroids." Its goal is to train qualified young people, rapidly and intensively, in a single, high-demand, immediately marketable skill. Students pay for nine weeks of full-time, classroom- and lab-based, hands-on training in web development using Ruby on Rails. Through Dev Bootcamp's close relationships with local IT companies, 88 percent of graduates find employment at an average starting salary in excess of $80,000.[22]
- Mozilla is developing an innovative concept of "badges" that take advantage of online resources to document skills more effectively. Badges can be created and issued by a wide variety of entities that certify skills. The content of the badge identifies the issuer, how the badge was earned, and links to online portfolios or testimonials further demonstrate possession of the skill. Badges are intended as a flexible way to support certification of both traditional and more innovative work-relevant skills, as they are acquired, and to help individuals present up-to-date employment and reference credentials in digital form.[23]

In each of these cases, enterprises and external partners have identified efficient ways to provide training for employment supplemented by classroom-based

coursework. These approaches represent a lean, condensed version of apprenticeship that is economically efficient to operate, but that delivers appreciable upgrades to the economically relevant skills of available talent, thereby generating economic benefits to both enterprises and program participants. This approach appears to be one that can be more widely replicated by enterprises facing skills shortages.

Essential internship: Short, sharp exposure to the workplace with real skill development

While apprenticeship is aimed at developing young people for mid-level skilled positions to provide value for an enterprise over a number of years, the underlying principles may be applied to short-term engagements in internship programs. The key characteristics are:

- A focus on in-college or college-bound youth
- A commitment to impart at least one identifiable and marketable job-related functional skill
- A commitment that the intern will deliver or contribute to at least one business-relevant project
- A condensed work and learning experience lasting between four weeks and four months

Paid internships would expand access to this experience, but the traditional model of unpaid or low-paid internships would not necessarily be precluded.

While we do not see a primary directive role for government in establishing essential apprenticeship or internship, governments can help to create an enabling environment in which these initiatives can flourish. Key areas for government support include the facilitation of national credentialing systems, and tax incentives and subsidies for training.

Essential Mentoring

Whereas the essential apprenticeship approach focuses on functional skills development, essential mentoring is designed to tackle a key obstacle for youth aged 18-24—employers' perception that this group often lacks behavioral skills that enable them to operate effectively in the workplace. Of the wide range of behavioral skills covered in the literature, four have been identified by employers as critical: reliability, flexibility, future orientation, and problem-solving.

Essential mentoring is an effective and respectful way to develop these four behavioral skills and thereby increase workplace effectiveness and productivity. Essential mentoring also serves as an important complement to an enterprise's investment in essential apprenticeship by increasing retention and reducing turnover among newly trained employees.

As the name suggests, essential mentoring is based on workplace mentoring approaches and involves a relationship between a more experienced person (the

mentor) and a less experienced person (the mentee or protégé) in which the goal is to encourage the personal and professional growth of the mentee.[24]

Our essential mentoring concept distills lessons from existing mentoring programs and practices in order to achieve two goals—first, to focus on the development of the four key behavioral skills that employers see as critical to value creation in their firms; and second, to make this process easier, more reliable, and less costly for enterprises so that a wider range of firms can realize the benefits of youth mentoring with low risk.

The Core Principles of Essential Mentoring

The approach that underlies essential mentoring is called "appreciative inquiry."[25] This strategy seeks to identify and reinforce things that an individual does well, rather than to criticize things that are done badly. If the goal of a particular mentoring module is, for example, to reinforce reliability, the mentor must not simply recite lectures but must probe the mentee for his or her own thoughts and experiences, provide strong reinforcement for positive behaviors and attitudes, and maintain patience and openness throughout the relationship.

The most important characteristics of essential mentoring are as follows:

- Essential mentoring is designed to serve as an integral part of the early career experience for all newly hired young people aged 18-24. It is not a grooming process for elite management trainees or a remedial strategy for disadvantaged individuals.
- The goal of essential mentoring is to develop and enhance key behavioral skills in the individual, and to thereby enhance productivity and retention for the enterprise.
- The mentoring process is based on positive psychology and the concept of appreciative inquiry. Although it is designed to engage a specific set of issues, the mentoring process is non-authoritarian. Mentors receive appropriate training so that they can apply principles of appreciative inquiry within the mentoring relationship. Mentees also receive training to help them make the most of the mentoring experience.
- The mentoring process itself, in the form of interaction between mentor and mentee, is guided by materials designed to enhance reliability and ease of implementation. However, it is also flexible, to allow for different personality and style preferences in the mentoring relationship.
- The mentoring process is supported by technology—for example, web platforms such as those developed by Chronus[26] or Everwise[27] can be used to support assessments and personality inventories that help in matching compatible mentors and mentees.
- The mentor and mentee are close in age. The mentor is slightly older and more experienced, and so may be regarded as a peer with whom the mentee can identify and form a relationship. Attention is paid to the matching of compatible mentors and mentees.

- The mentorship process lasts for a minimum of 18 months. Significant behavioral and attitudinal transformation cannot be expected within a shorter timeframe.

The Value of Mentoring

The essential mentoring approach outlined above is strongly supported by mentoring research, which identifies the primary benefits for mentored individuals as psychological reinforcement and career reinforcement. The mentoring process leaves the mentee with greater confidence, assertiveness, and leadership skills; it also leaves the mentee more knowledgeable about the organization and the ways to succeed within it, and more focused on career opportunities and strategies for achieving them.

Research shows that mentored employees demonstrate higher levels of job performance, earn more, are promoted faster, and report greater job and career satisfaction than nonmentored employees.[28] Even the mentors themselves report significant professional gains from participating in mentoring programs, including a sense of accomplishment and meaning, enhanced visibility and expanded personal networks within the organization, and improved managerial, leadership, and technical skills.

Mentoring provides significant benefits for enterprises as well as for individuals. A 2005 UK study evaluated and ranked the primary benefits of mentoring for employers.[29] It found that the existence of mentoring programs led to enhanced staff retention, improved communication, higher staff morale and motivation, and superior business learning.

Finally, mentoring has been shown to be a particularly effective strategy for modifying behavioral skills. Another study showed the "indispensability of work based learning for developing non cognitive skills, such as problem solving, teamwork and social skills."[30] Mentoring "works" for individuals because certain key skills and behaviors are best learned in the context of a relationship. Social learning theory stipulates that learning occurs through process of modeling—a mentee learns the behavioral norms of the organization from the mentor.[31] For young people in particular, mentoring has been shown to create a wide range of positive outcomes:[32]

- **Socio-emotional development:** Mentoring can serve as "emotion coaching"[33]. By listening and providing a model of effective adult communication, mentors help young mentees to better understand, express, and regulate both their positive and negative emotions, and interact more successfully with others.
- **Cognitive development:** Mentoring can facilitate young people's intellectual growth and problem-solving abilities, including information processing, abstract and relational thinking, and self-monitoring. A caring adult can create a "zone of proximal development," appropriate for the individual mentee, where the younger person is exposed to new experiences, new ideas, and new challenges

that are a "stretch" for his or her current cognitive framework but present a manageable opportunity for assimilation and learning.[34]

- **Identity development:** Young people identify with competent mentors and view them as role models; as a result mentors become "social mirrors" into which young people look to form and refine their opinions of themselves. Through acceptance, support, and regard from mentors, young people gain a sense of competence and self-worth.[35]

Given all of these advantages, it is somewhat surprising that mentoring has traditionally been confined to two extremes of the employment spectrum. In the upper professional tiers, traditional "elite" mentoring was highly selective, and focused on the cultivation of potential organizational leaders. Mentoring relationships were generally based on the interests and personality of individual senior executives, who were interested in forming like-minded protégés in their own image. The other most common sort of mentoring program involves enterprise sponsorship and staff participation in community-based youth mentoring, usually targeted toward at-risk youth from disadvantaged backgrounds who are still in school.

TEMPLATES FOR SUCCESS—INNOVATIVE MENTORING PROGRAMS AROUND THE WORLD

The essential mentoring model we outlined above is not only based on cognitive research but also inspired by the practical experience of a number of organizations that have used mentoring in the course of their talent acquisition and development process:

One prominent firm that offers mentoring to all employees is the global accounting and consulting firm, KPMG, which has been ranked as one of the most attractive companies to work for. KPMG makes mentors available to employees on all career tracks and at all professional levels. More than 15,000 employees have participated in the program. The goals of the program are "to increase employees' connection with the firm and their development," in order to ensure that they "progress and remain at KPMG throughout their careers." KPMG provides comprehensive training for mentors and mentees, and uses webcasts for the distribution of interactive training modules. KPMG undertakes formal program monitoring and surveys the satisfaction of participants, who report positive results for the program as well as enhanced career satisfaction. Mentored employees demonstrate significantly less turnover than non-participants in the program.[36]

Since 2006, The Gap has been conducting a program called This Way Ahead for youth (age 16-21) in three cities: New York, San Francisco, and Boston. The program, operated in cooperation with local nonprofits, provides 4 months of training in behavioral skills, followed by 2 weeks of training in job-specific skills to prepare candidates for 4-month internships in Gap retail stores. At the end of the internship, candidates apply for regular jobs in Gap stores, and 75% are successfully hired. The internship period includes structured coaching and mentoring from

employees of the nonprofit (with an emphasis on personal support and development) and also from Gap store managers (with an emphasis on professional development). Coaching and mentoring continues for 12 months after the internship ends, to help ensure the mentee's success on the job. Plans are in process to expand the program to two new cities.[37]

Expeditors is a logistics management company with 12,000 employees in 60 countries. Their Opportunity Knocks program seeks out high school students who are not currently intending to attend college. Program participants work part time while receiving intensive mentoring on issues related to professionalism and the acquisition of marketable job skills. Young people meeting the program's performance benchmarks have the opportunity to be hired full-time by the company, which then provides formal career development opportunities for them. The program's motto is "Hire for Attitude, Train for Skill." A major factor in the creation of the program was the experience of senior vice president Dan Wall, who attributes his own success in rising from an entry-level position to the mentoring he received as a new, young employee. The program is becoming a strong part of the corporate culture, with many of the mentors citing the strong personal satisfaction they get from helping young people find their way in the workplace. While the program is currently based at Expeditors' headquarters in Seattle, the company has prepared a detailed program manual and is using it to replicate the program at many of its branch offices.[38]

In Vietnam, PepsiCo has created a structured mentoring program for new hires that, while targeted at management trainees, is focused on newly hired recent university graduates. Candidates generally have degrees in marketing, sales, or management. The 18-month program assigns participants both a job coach and a non-manager peer mentor, and the content of mentoring includes support for both technical learning tasks and behavioral skills development. The program rotates participants through different shifts and functions, and provides them with formal evaluations every six months. [39]

Conclusion

There are three criteria by which one should judge the effectiveness of remedies for talent shortage:

1. The remedy should lead to success for enterprises in acquiring and developing talent that fuels growth, profitability, and sustainability.
2. The remedy should help young job seekers to become established in gainful and meaningful careers.
3. The remedy should contribute to progress in society by improving school-to-work transitions, reducing youth unemployment, and energizing young people for economic participation.

For our part, we have incorporated the elements discussed above in TEN Youth, a model that we will in the coming months pilot, revise, and place in the public commons. If enterprise growth is to be profitable and sustainable, enterprise

engagement with youth via innovative internships, apprenticeships, and mentoring will be essential. We hope our article provokes discussion and proactive enterprise engagement.

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10. Although these skillsets are analytically separate, they may or may not be formed by separate institutions in each case. For example, a large and sophisticated enterprise might provide training in functional skills using its own resources, while a smaller firm might work with an external training partner.
11. Reliability is related to the conscientiousness and emotional stability components of the Big Five Factor Personality Model. Murray R. Barrick and Michael K. Mount, "The Big Five Personality Dimensions and Job Performance: A Meta-Analysis," *Personnel Psychology* 44(1), 1991: 1-26 found robust evidence for a close correlation between conscientiousness and job performance across all occupation groups. Jesus F. Salgado, "The Five Factor Model of Personality and Job Performance in the European Community," *Journal of Applied Psychology* 82(1), 1997: 30-43 showed that conscientiousness and emotional stability are positively associated with productivity and job performance across occupations.
12. Flexibility is related to the openness to experience (autonomy) and agreeableness components of the Big Five Factor Personality Model. Flexibility is related both to the ordinary requirements of teamwork and to successful engagement with the accelerating pace of change in the business environment.
13. Future orientation is related to the openness to experience (autonomy) component of the Big Five Factor Personality Model. Motivation directly impacts the mobilization of skills and abilities, and has been proven to increase achievement. Other components of future orientation, such as deferred gratification and wilful planning are important indicators of worker retention.
14. Problem solving is related to the agreeableness and openness to experience (autonomy) components of the Big Five Factor Personality Model. Problem solving is an essential part of every job and a pragmatic definition of success in the workplace.
15. In addition to the examples provided later in this section, a more rigorous analysis (in a developed-economy setting) is offered by Chris Hasluck, Terence Hogarth, and Duncan Adam, *The Net Benefit to Employer Investment in Apprenticeship Training: IT Apprenticeships: A Report for the Apprenticeship Ambassadors Network, University of Warwick Institute for Employment*

Research, 2009. Hasluck et. al. examined relatively low-cost and rapid-return IT apprenticeships in the UK. These apprenticeships focused on mid-level skills (NVQ Level 2 or 3), were predominantly hands-on and workplace-based (though they included a classroom component), were generally less expensive than apprenticeships in other sectors, and generally showed a positive return on employers' training investment within six months.

16. For purposes of essential apprenticeship, we envision the targeting of certifiable functional skills immediately relevant to the job at hand, rather than a broad category of related vocational skills.
17. A particularly interesting concept, under development by companies like IBM and Designing Digitally, is the simulation of expensive equipment and complicated production processes through realistic "game"-style environments. For examples and discussion see: "'Serious Game' Provides Training to Tackle Global Business Challenges," IBM News Release, February 19, 2009, available at http://www-03.ibm.com/press/us/en/pressrelease/26734.wss. See also: 3D Serious Games and Simulations, (web site), available at http:// www.3dseriousgamesandsimulations.com/.
18. Education for Employment web site, http:/efe.org. See also a brief analysis by the World Economic Forum, "Social Enterprise: Education for Employment," available at http://reports.weforum.org/social-innovation-2013/view/education-for-employment
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20. Nick Clayton, "Kenya Faces Tech Skills Gap," *Wall Street Journal Tech Europe*, http://blogs.wsj.com/tech-europe/2012/08/15/kenya-faces-tech-skills-gap/
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25. Peter Reding (master certified coach, trainer and author), interview by Branka Minic. See also his organization's web site, the Foundation for Inspired Learning, http://www.inspiredlearning.org.
26. Proven Mentoring & Social Learning Solutions—Chronus Corporation web site, http://chronus.com/
27. EVERWISE: Workplace Mentoring. Reinvented., web site, http://www.geteverwise.com
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