Addressing Today's Talent Gap: An Inductive Investigation into Balancing the Demand and Supply of 21st Century Workforce Talent

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Institutions of higher education are under immense pressure to become more aware of market demands and the role they play in offering the supply-side for the demand. This article highlights the disconnect between skills organizations need/demand and the supply of those skills, talent, and knowledge from university graduates. Specifically, a deficiency in work ethic, passion, and drive (possibly termed "the right attitude") was noted as a vital gap. Additionally, and importantly, these personal attributes along with continuous learning, the ability to innovate, and communication skills emerged as key characteristics needed among the workforce today.

Over the past couple decades, much has been written about the shortcomings of higher education, with specific critique directed at business education. Colleges and universities are under fire by corporations and accrediting boards for lack of practical application and relevance in curriculum today. Warren Bennis and Henry Mintzberg have been two of the more vocal critics of the current gap between marketplace demand and higher education supply of talent. In 2005, Bennis and James O'Toole (2005: 96) documented How Business Schools Lost Their Way in the Harvard Business Review noting, "for many years, MBA programs enjoyed rising respectability in academia and growing prestige in the business world ... . Today, however, MBA programs face intense criticism for failing to impart useful skills, failing to prepare leaders, failing to instill norms of ethical behavior." Part of the Bennis/O'Toole (2005: 96) argument is the foundational model many business schools have adopted. Many leading business schools today measure their success "solely by the rigor of their scientific research" rather than "the competence of their graduates, or by how well their faculties understand important drivers of business performance."

Similar to Bennis' perspective on rigor, Mintzberg's work with Jonathan Gosling (2004) challenged foundational methodologies and traditional educational design suggesting they are not effective in preparing a student for practical business work. This is partly due to poorly designed curriculum and in some cases curriculum that is simply not relevant to the practical demands faced by managers in organizations today.

Others, too, have criticized academia's approach to supply the demand of organizational management talent. Walz' (2006) meta-analysis of criticisms concurred with Gosling and Mintzberg (2004) regarding inappropriate educational methodologies and also noted that schools recruit the wrong students and teach the wrong things. Pfeffer and Fong (2002) urged schools to reorient their value proposition away from vocation and towards business as a subject matter.

Mark Taylor (2009: A23) captured the issue in a N.Y. Times article titled End the University as We Know It when he noted, "Most graduate programs in American universities produce a product for which there is no market." Similarly, this reality was noted by Martinelli, Rahschulte, and Waddell (2010: 35) as they concluded "Skills and competencies have not kept pace with the more comprehensive set of capabilities necessary to be successful."

In short, institutions of higher education are under immense pressure to become more aware of market demands for talent and the resources, processes, and practices by which they provide the supply-side for the demand. Unfortunately, many are still falling short. In a recent lecture at the Stanford Graduate School of Business, Jeff Immelt (2010), Chairman and CEO of General Electric, informed the students and administrators that what is being taught and learned in school today is "irrelevant." This has got to be fixed. Gosling and Mintzberg (2004) likely got it right when they noted companies and business schools must collaborate to reinvent management education. How to most effectively accomplish this task has yet to be determined.

At the same time that universities are being subjected to outside critique, the marketplace is continuing to observe and reinforce the value of training individuals who are entering the workforce. It is a collaborative effort that is needed to supply the market with the appropriate mix of formal education, on-the-job training and practical experience. Business schools and institutions of higher education need to listen to the corporate voice to ensure maximum relevancy and optimum output while. While the gap between workforce talent supply and demand exists in a broad cross section of disciplines, of which business would be included, business schools seem to be in the middle of this challenge.

Limitation

The respondents in this study were not asked to isolate their comments to only business school graduates. Instead, survey participants were asked to direct their responses to new personnel who have been joining their teams. These individuals could have been business school graduates or they could have been from a variety of other backgrounds. The study did consist of only executives and senior-level management, so it can be anticipated that their hiring and work teams would be limited to professionals, many of which would be in management roles themselves. The purpose of this inductive research was not to isolate the findings to business school graduates, but to garner wider information that would help inform educators and practitioners about the current state of the literature-identified talent gap. Because of the authors' affiliation with business schools, the findings are used to develop recommendations for business educators and administrators to obtain greater alignment between formal education and workforce talent needs.

Data Gathering and Analysis Method

To understand the market demand situation in a bit more detail, this research study was designed to investigate the knowledge, skills, and abilities needed to address issues being managed in organizations today. Specifically, the research asked participants to address (a) whether or not hiring managers were being supplied with the talent, skills, and knowledge necessary to address these challenges and (b) if not, what is missing. In an attempt to cover a cross section of industries, multiple data gatherers were used for this research as was a convenient sampling strategy (Patton, 2002).

The data gatherers were graduate students. These students were trained to conduct interviews with business professionals and their work was managed by graduate research faculty. Data gathering occurred from 2010-2011 using semi-structured interviews. The sample comprised 90 professionals from 90 different organizations representing a cross section of industries. Each participant was interviewed individually by phone, face-to-face, or (in a few instances) by email. The sample demographics are illustrated in Table 1.

Table 1: Sample Demographics

Sample	Rank	Experience	Direct Reports	Firm Size
71 male (77%)	65 Executives (72%)	Mean 8 years	Mean 8	Max 220,000
19 female (23%)	25 Managers (28%)	Median 5 years	Median 4	Mean 9,655
90 Total				Median 108

Data were gathered by handwritten note and (in a few cases) by email response from participants. Data were transcribed by three of the authors, put into MSOffice™ tools (MSWord™ and MSExcel™) for coding purposes. Creswell's (2009) protocols were followed for coding. In all instances, multiple rounds of coding were performed; a minimum of three rounds per topical area were necessary. The fourth author here served as reviewer of data analysis and process analysis thus helping to mitigate risk, especially researcher bias. Pertinent findings are detailed hereto.

Findings

The first research question asked participants, "As you look at your direct reports and other personnel who would be under your purview, which is more important if you could choose just one: Having skill, having experience, or having a degree? Why?" The useable responses (n = 70) to this question illustrated that, when prioritizing these against each other, having skill and experience were about equally important and much more important than having a degree. As shown in Table 2, 33 (47.14%) respondents indicated that having experience was most important, 32 (45.71%) reported that having skills was most important. Five (7.14%) respondents indicated that having a degree was most important, which is interesting since many employers require a degree as a minimum qualification for employment. It could be that some respondents saw the "degree" answer option as a given in their hiring process, however, as noted by one member of the sample, "In today's society, the cost of an education [degree] is prohibitive for many and no longer indicates a person's ability to contribute to an organization."

Table 2: Importance of Skill vs. Experience vs. Degree

	n	%
	n = 70	
Skill	32	45.71
Experience	33	47.14
Degree	5	7.14

Experience

There are numerous explanations as to why experience might be seen as most important. The most commonly cited reasons in this study are summarized by the following:

1. There is so much that is learned that can only be learned by on-the-job experience and classroom knowledge is inadequate by itself.
2. Experience allows an employee to work much more efficiently and reduces the learning curve by allowing employees to grasp concepts more quickly and handle a more varied set of situations and problems.
3. Experience lowers the cost of training. Skills and education can happen quickly. Experience takes so much more time to acquire.
4. Experience lowers the risk of hiring because it demonstrates that people know how to do the job and are able to work effectively in the respective positions.
5. Employees with experience are able to share their experiences while knowledge transfer happens quite naturally when hiring someone with experience.
6. Employees with experience are able to draw not only upon the tangible experiences but also on their previously established networks.

The following direct quotes serve to elaborate on several of the above points. One executive said, "Experience is most important. Skill can be taught in training and a degree can be earned in college. You earn experience only from work." Another respondent added, "Skills and degrees are important, but having experience is so important because those employees are able to grasp concepts much more quickly." Finally, a quote that summarizes many of the responses is, "You can gain experience in a lot of ways including through formal education. Having skills does not necessarily mean that you are able to apply it well to given situations. Experience pulls all other elements together."

Skill

Having the necessary skills was deemed most important by a large portion of the survey respondents (45.71%). The most often cited explanation for the importance of skill is that skills are the foundation for everything else that is needed. In this sense, skills are analogous to atoms, as the basic building block for matter. Skills provide the framework upon which to build. Some of the other frequently mentioned reasons for the importance of skills include:

1. Skills are transferable and can be applied to a variety of situations.
2. Skills are what enable someone to gain valuable experience. With the proper skills, one can gain all of the experience that he/she needs.
3. Having skills indicate that someone has what it takes to do the job.
4. Skills indicate ultimate capability and potential. Experience might lower the risk of hiring, but employers do not mind taking a risk if the potential upside is high as indicated by skills.
5. Experience shortfalls can be made up and degrees can be acquired. Skills are innate and are difficult if not impossible to cultivate and develop if not in place. It is the one area where training and development have the least amount of impact.

Respondents also pointed to the importance of having specific types of skills. Some of the most desired skills mentioned by the respondents in this study include:

-   communication
-   problem solving
-   customer orientation
-   responsibility
-   perseverance
-   cross-cultural communication
-   passion
-   common sense
-   analytical skills
-   quick learner
-   intelligence level
-   adaptability

There were a few quotes provided by interviewees regarding the importance of skills worth noting here. One manager said, "Skills are the most important. Skills are attributes that can be leveraged to create new experiences." Another respondent added, "You have to be very practical when you enter the working world. Skills might be the best because, through skills, you can gain experience. The people who are curious and accountable and have a sense of urgency and humor are the ones who are successful." A final quote that provides some interesting insight into one perceived difference between skill and experience is, "I've had many experiences that do not correlate to my skills in a certain situation. This may trivialize it, but I fly a lot (two or three times a week, at times), but I can't fly a plane or be a flight attendant. Although I have the experience of flying, that's not something that is valuable to most people. The skill though, and the understanding of the value of your skill set, is what I find most important."

While not specifically solicited on the data collection instrument, some executives/managers elected to comment outside the multiple choice options of "skill," "experience" or "degree." Many of these were isolated responses and therefore were ignored for the purpose of this study. However, there were two attribute themes that emerged which received more responses than the "degree" category and are worth mentioning here. Those two attributes were "attitude" and "ability to learn."

The primary justification for "attitude" was that companies can help employees get skills from training and experience over time, but attitude is difficult to train. Having the right attitude also is the foremost predictor of how effective training will be. One interviewee said, "Skill indicates that the person can do something, but attitude decides everything. If the person is willing to learn or has the motivation to learn, it does not matter what skill he or she has because everything else can be learned." A second respondent point out that "I'll take a good attitude over skill, experience, and degree. With a good attitude, one can overcome barriers."

Closely related to attitude is the attribute of "ability/willingness to learn" or "being coachable." Some respondents indicated that being "open to learning" is the most important attribute in employees. The ideas of support that were presented involve the need to learn no matter what the level of skill or experience. One respondent said, "I do not care too much about the degree, as long as he/she is willing to learn." Another response was that in order to succeed in today's organization, "you need the ability to learn and the inquisitiveness and curiosity to want to understand." Finally, an executive summarized this question by saying, "If personnel lack skill, they can learn it. If they lack experience, they can practice more. And a degree just represents people's past. In my opinion, the spirit of continuous learning and a strong sense of responsibility are the most important. Current advanced techniques will become outdated someday and focusing excessively on experience will make people stop innovating. But, a spirit of continuous learning will lead people to effective processes."

The second research question presented to the participants was, "Within your company, are personnel joining the workforce with the necessary knowledge, skills, and abilities (KSAs) to be valuable workers? If no, what is missing?" The useable responses (n = 58) to this question illustrated that most executives and managers interviewed feel that personnel joining the workforce do not have the necessary KSAs needed to be valuable workers. As shown in Table 3, 15 (25.86%) of the respondents indicated that incoming personnel do have the necessary KSAs to be successful. Twenty-three (39.66%) of the interviewees said that personnel were not joining the workforce with the necessary KSAs. Another 20 respondents did not directly answer "yes" or "no" but provided an answer indicating that some KSAs were present while other KSAs were missing. From looking through these responses and studying the wording of the question, it was deemed that these 20 (34.48%) responses should be separately grouped into a "Some" response. In all, nearly 75% of sample respondents indicated new hires do not have enough of the needed KSAs to address issues of the organization so that they could indicate "yes" during the interview. To be sure, these new hires could be seasoned professionals or recent graduates. However, it was implied at the start of each interview that the intent of the research was to uncover any skill gaps that need to be addressed in academic curricula.

Table 3: Are Personnel Coming With the Necessary KSAs?

	n	%
	n = 58	
Yes	15	25.86
Some	20	34.48
No	23	39.66

Of those answering "yes" to the second research question, most pointed to their hiring processes as an explanation as to how they were able to ensure adequate match between the personnel needs and supply of talent. Some indicated rigorous screening systems while others pointed to higher than normal pay and great employment benefits that yield good talent. Others pointed to the stagnant economy and high unemployment rate that has provided the environment for more selective personnel hiring procedures.

If answering "no" to the second research question, interviewees were encouraged to provide an answer as to what was missing. There were a variety of responses. Table 4 illustrates the categories of responses to the question of what is missing.

Table 4: What is Missing?

	n	%
Work ethic / Discipline /Passion / Drive	18	38.3
Technical skills	6	12.8
Communication skills	5	10.6
Critical thinking / Analytical skills	3	6.4
Experience	3	6.4
Positive attitude	2	4.3
Right fit / values	2	4.3
Ability to learn	1	2.1
Entrepreneurial skills	1	2.1
Honesty	1	2.1
Loyalty	1	2.1
Math skill	1	2.1
Responsibility	1	2.1
Teamwork	1	2.1

As displayed in Table 4, the dominant answer (mentioned by 38.3% of respondents answering this question) as to what is missing with personnel joining the workforce is a strong work ethic and drive. This answer was followed by technical skills (12.8%) and communication skills (10.6%). The top three response categories accounted for 61.7% of all responses.

The third research question asked, "Pertaining to the issues listed above, as you look at your staff, what knowledge, skills, and abilities do you believe are the most important in order to address organizational issues today?" Table 5 displays the frequency of responses for each of the categories as coded.

Table 5: KSAs Needed for Most Pressing Issues

	n	%
Personal Attributes	33	25.8
Ability to Change & Innovate and Ability to Learn	32	25.0
Communication skills	25	19.5
Task-Related Skill and Knowledge	18	14.1
Managing Relationships & Team Work	12	9.4
Leadership	8	6.3

Four predominant themes emerged:

1. Personal attributes,
2. Ability to change and innovate and ability to learn,
3. Communication skills, and
4. Task-related skill and knowledge and ability to learn, and

Personal attributes were mentioned by 25.8% of the managers and executives polled. The theme of personal attributes was a bit wide-ranging, but each of the responses concerned some personal characteristic or virtue that added value to the work environment. Two attributes rose above all others:

1. Character, and
2. Having a positive attitude.

As a desired personal attribute, some respondents used that term "character" while others used words such as "trust," "personal integrity," "ethics," and "morality." Those interviewed also wanted personnel with good attitudes and a positive outlook.

While "character" and "positivity" were highly prized, there were other virtues that were mentioned by multiple respondents. A frequent response was "kindness" or "compassion." Closely related would be the virtues of "respect" for others and concern for "social justice." Another frequently-mentioned characteristic was described as "confidence" or "courage." Other personal attributes cited include being patient, being a good listener, exhibiting humility, and embodying hope. As one respondent commented, "Hope is required to make the job fulfilling. The

best people are those who really see their work as a challenge and they see the value they bring to the company. Each generation should build upon the previous generation and do better."

A similar number of participants, 32 (25.0%), felt that the most desirable knowledge, skills, and abilities needed were those that involved "change," "innovation," and willingness to "learn." As noted by the sample, a solution to many organizational issues includes the need to be creative and approach situations differently with new ways of doing things. Respondents said they were looking for "entrepreneurial spirits" and employees with "flexibility" and a "discerning eye" toward "continuous development." Closely related was the need for workers with the desire and willingness to learn new skills. Phrases were used such as "open mind," "continuous learning," self-reflection," "desire to improve," and "personal growth." These leaders felt like change is inevitable and that a future workforce needs to be willing to embrace change and become agents of change.

Almost 20% of the participants identified communication skills as the most needed knowledge, skill, and ability. Many responded that interpersonal skills are crucial to facing the most pressing needs of the future. As one respondent noted, "it's all about people and communication." Phrases that were used include: knowing how to "ask questions," "listen," "communicating with internal and external organizations," and "cooperation." One participant summarized the issue nicely, noting that communication, both verbal and written, is "necessary in order to enforce your vision and strategy."

Task-related skill and knowledge and ability to learn were mentioned by 14.1% of the sample. There were a variety of skills that were mentioned within this theme, but the most frequently cited skill was quantitative abilities, largely applied to the accounting and finance functions. Other skills listed were clearly secondary, but included sales skills and consumer knowledge, information technology knowledge, negotiation skills, and the ability to apply theory to practice.

A lesser group of participants, 12 (9.4%), indicated the need for incoming personnel to have proficiency in working within teams and establishing and maintaining a strong "relationship network." The focus on "teamwork" was clear and was probably best described by one respondent who said, "we need people who like working with other people and for other people." Another participant added, "We need personnel with the ability to collaborate outside of traditional boundaries, working with community businesses through strategic alliances." It is implied that part of the creativity conversation mentioned above involves leveraging personal networks to a greater extent.

Finally, there was a small theme of responses, 8 (6.3%) that pointed to the need for "leadership" qualities. Most of the comments fitting into this category were straight to the point and called out the need for people with strong abilities to "lead and manage people."

DISCUSSION

The data from this research revealed several important findings and theoretical implications. The top three are specifically outlined below in detail:

Theoretical Finding 1: There certainly seems to be a gap between organizational talent demands and the knowledge, skills, and abilities supply in recent graduates - new hires. Nearly 75% of sample respondents indicated new hires do not have enough of the needed KSAs to address organizational issues today. This demand-supply gap implies that a degree alone is not sufficient for today's organizations. The degree may be a minimum qualification for employment, but the value of the degree will only change if the work associated with earning the degree becomes more relevant to the current market needs of organizations and if the process of matriculation allows students to gather both skills and experience.

Theoretical Finding 2: Organizations are very interested in employees that possess moral and ethical attributes. Higher education institutions have an opportunity to shape the inner lives of students in a way that benefits these organizations. While it is understood that many faculty members and administrators work to provide detailed case studies, global immersion studies, internships, and other simulations of "real" work, these approaches may, in fact, be teaching about subject matter, but missing the teaching on personal (student/employee) responsibility. These approaches need to be refined and improved. As such, faculty and administrators should indeed continue to work to provide "real" (relevant, practical, applicable) work in the classroom as well as extracurricular involvement, but importantly do so in way that the student also learns the importance of character, work ethic, and attitude.

Theoretical Finding 3: Faculty often structure curriculum to focus primarily on subject matter content and secondarily on tertiary matter such as critical thinking, communication, and teamwork. This research found that while this knowledge is important, the skills necessary to enact the know-how is lacking. The respondents noted

significant gaps in the ability to effectively communicate, problem solve, and lead change and as such, these should be in a rubric to assess curricular "readiness" for effectiveness.

These research findings all point to the need to engage in closer alliances with hiring managers and corporate executives to understand their needs and modify curriculum accordingly.

While some business schools do regularly survey the needs of their local business community as part of their strategic plans, largely, faculty and administrators must spend more time understanding how to scale curriculum. To scale means to differentiate the curriculum and expected outcomes for newly hired staff (undergraduates) as compared to middle managers (graduates/MBA programs) and senior leaders (graduates/executive MBA programs). These findings also point to the need to evaluate curriculum and programs on a more regular basis with increasing rigor and discipline to make changes. Some changes will no doubt be difficult, but if the goal is to supply the market with knowledge, skills, and abilities to address pressing issues and challenges in corporations and communities, change is needed.

These findings and implications point to a future-state education model in a direction with a bit of a different trajectory. The hope is that, from this research, some dialogue can be created among participants whereby we, as educators, can generate ideas about how to become proactive in the process of designing business education that is relevant, wrapped in good moral and ethical principles and that best prepares our students to make a marked difference on the world.

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