Analytical reasoning solved questions pdf

I'm not robot

reCAPTCHA

Continue

I'm not robot

reCAPTCHA

Continue

Start with MicroMasters® ProgramIf you're not sure what online training is for you, or if you want to get a master's program before you apply, start with Analytics: Basic MicroMasters Program Tools and Techniques from Georgia Institute of TechnologyThis MicroMasters program is designed for promotion, and can count as up to 9 credit hours to the OMS Analytics program from GT if you are applying and accepted into the program. Courses in the MicroMasters program can count on creditGet deep learning designed to advance your career while you decideStrengthen your master's applicationRecognized by employers for real-life relevanceMicroMasters programs offered by edX in connection with its university partners. In addition to offering a path to credit, these programs are recognized by employers for their real-world relevance. Start MicroMasters Program translator Jonathan Knowles/Getty Images Analytics performs some of the most important functions for integrating analytics capabilities into the company. They identify business tasks that analytics can help solve, guide technical teams to create analytical solutions to these problems, and implement solutions in business operations. This is a specialized job, calling for a strong business acumen, some technical knowledge, as well as project management and chops for delivery. Deploying translators is especially important during the company's early efforts to use analytics, when much of its analytical know-how is in a small cohort of data managers and practitioners. We've seen companies hatch ambitious plans to apply analytics in dozens of situations, just to back off because they employ too few people who can deliver solutions. This gap should narrow in the long run as analytics permeates the business and analytics training becomes a standard part of employee development. But in the face of competitive pressure, companies can't wait to work with analytics on a large scale. Translators can help businesses quickly climb the analytics learning curve and roll out more usage cases than they might otherwise. While translators can acquire some of the necessary knowledge to work through coursework, they have the greatest impact once they have developed practical skills based on work experience. However, it is all too common for managers to assume that employees can act as effective translators capable of delivering analytical solutions once they complete a class on the rudiments simulation. In fact, employees who only receive classroom training are more like teenagers who sit through a driver training course and then go outside Try to drive-without-driving training, controlled practice, or feeling the road. Translators can only master their trade by observing experienced colleagues at work and then working on real issues with expert guidance. It's This. a real approach to training prepares translators to manage different teams of professionals, create replicated workflows, and apply business judgments to assess trade-offs. None of these steps can be missed if the company hopes to apply analytics broadly and generate significant value. By ingesting translators and positioning them for exposure before launching a translator-learning effort, executives should outline the company's analytics strategies and priorities. They can then determine how many translators are needed in each part of the business, and target recruitment and training programs accordingly. Translators usually work in business units, in close proximity to day-to-day operations in stores, factories, mines, call centers and other sites where employees make products or deal with customers. These perspectives allow them to identify use for analytics and ensure that analytical solutions are built into the business for impact. Ideally, translators will have time working in business operations before starting an interpreter training. Existing business staff often make better translators than new employees because they have an important quality that is difficult to teach: knowledge of the area of business where analytics will be applied. In other words, business operations are the typical native language of an interpreter. In addition to the business acumen, other qualities companies should look for in internal translation candidates include room comfort, project management skills, and entrepreneurial spirit. Training programmes can then focus on the technical knowledge and practices that translators need. Raising basic analytical awareness The first phase of the translator training program should provide employees with fundamental analytical knowledge: a basic understanding of how analytical techniques can help solve typical business problems, as well as a general familiarity with the process of developing analytical cases. This level of knowledge is easily achieved through a week or so of classroom coverage training: the potential for widespread use of analytics in its industry and, more specifically, across the value chain of the business. General methods for prioritizing analytics and defining its scope. Overview and, ideally, simulation of the lifecycle of the case of using analytics: identifying a business problem, selecting targeted variables, brainstorming the functions of a potential solution, and interpreting results. Roles played by translators and other professionals (such as data scientists, data engineers, technical architects, and user experience developers) at every stage of the use of analytical cases. The main types of analytical approaches (descriptive, and prescriptive), with deep immersion in several common algorithms (such as decision trees, neural networks and random forests) and how they apply to business business Methods for evaluating the effectiveness of analytics models and understanding the trade-offs associated with specific models. Flexible ways of working are testing and training on short development cycles or sprints that help multifunctional teams deliver effective solutions quickly. The practice of introducing analytical solutions into business and overcoming implementation difficulties such as cultural barriers. Translators also need technical depth to keep their own when discussing approaches to solving problems with data scientists. Many take online lessons to learn common programming languages, such as R or Python, and learn more complex algorithms. However, in order to conduct usage processes, translators must hone their skills through practice, as language students strengthen their learning in the classroom when they are immersed in native speakers. Developing the ability to provide analytical cases of use Analysis uses a case that follows a process that applies to a wide range of business problems. The translator first helps to identify a business problem and translates it to the data of scientists in technical terms. She then confirms that the chosen analytical method solves the problem cleanly and effectively, or will help the designers if the use of the case requires a tool for front-line colleagues. The process concludes with the implementation of an analytical solution that the translator facilitates by helping users incorporate it into their procedures. This often includes an explanation for the end users of what happens inside the black box model, so that they can be handy using the ideas it provides. Most translators learn the delivery process through a class or online study and then learn it during training. They begin by observing expert translators at work and gradually assume more responsibility, culminating in the responsibility of teaching others. A typical progression consists of the following steps: shading an experienced translator on one or more cases of use. Leading cases of use under the supervision of an experienced translator. Leading cases of use on their own, turning to experienced translators for help with specific difficulties. Coaching apprentice translators on the path described above. There are no fixed number of cases of use that translators have to complete at each stage to progress their abilities. The correct number is the number that prepares translators for the next stage, and it can vary depending on the range and complexity of analytical methods and business problems that the translator deals with, among other factors. Our experience shows that translators spend six to twelve months in a training. Others may be ready sooner. translator at McKinsey began his degree in engineering and several years of consulting experience, which taught him how to structure and solve business problems. After studying data science in a week-long executive education course, he worked with an experienced translator and then began to conduct cases of use. Now he is not only a productive translator, but also a teacher in analytical classes. Since companies that are just beginning to implement cases tend to lack experienced translators, some rely on external translators to deliver their first wave of usage cases and monitor their original students. Once three or four employees have learned how to deliver, they can train new students. Training translators is one of the most important investments in analytics that a company can make, because companies rarely capture the full value of analytics without capable translators. The key to teaching the translation workforce is a multi-level progression in which employees learn concepts in the classroom before learning new skills through apprenticeships. Translators link the theory and practice of analytics; their training courses should do the same. Culture is easy to feel, but hard to measure. Workhorses of culture research - employee surveys and questionnaires - are often unreliable. The new approach to language learning, which employees use in electronic communication, has opened a new window into organizational culture. Research analysis of email, Slack messages and Glassdoor posting is a challenging task of prevailing wisdom about culture. The findings of the cultural fit are important, but what predicts success is most the speed at which employees adapt as organizational culture changes over time. Cognitive diversity helps teams during the idea, but hinders execution. The best cultures encourage diversity to stimulate innovation, but based on shared core beliefs. Business culture can catalyze or undermine success. However, the tools available to measure it, namely employee surveys and questionnaires, have significant drawbacks. The values and beliefs that people say are important to them, for example, often not reflected in how they actually behave. In addition, surveys provide static or, at best, episodic images of organizations that are constantly evolving. And they are limited by the tendency of researchers to believe that distinctive and idiosyncratic cultures can be neatly classified into several common types. Our research focuses on a new method of evaluating and measuring organizational culture. We used big data processing to refine the ubiquitous digital footprints of culture in electronic communications, such as emails, Slack messages, and Glassdoor. By studying the language that employees use in these communications, we can measure how culture actually affects their thoughts and behavior at work. In one study, two of us collaborated with medium-sized technology to assess the degree of cultural value between employees and their colleagues based on the similarity of linguistic style expressed in internal e-mail messages. In a separate study, two of us analyzed the contents of Slack's messages, which were exchanged between members of nearly 120 software development teams. We studied the variety of thoughts, ideas and meanings expressed by team members, and then measured whether it is beneficial or harmful to teamwork. We also partner with employers review site Glassdoor to analyze how employees talk about the culture of their organizations in anonymous reviews to explore the impact of cultural diversity on organizational efficiency and innovation. Jean-Pierre Attal/Courtesy of Galerie Olivier Waltman Explosion of digital trace data such as emails and Slack communications - along with the availability of computational techniques that are faster, cheaper and easier to use - has opened up a new scientific approach to measuring culture. Our computational-linguistic approach challenges the prevailing assumptions in people's analytics and reveals new insights into how managers can use culture as a strategic resource. We believe that with appropriate measures to protect employee privacy and minimize algorithmic bias it has great promise as a tool for managers grappling with cultural issues in their firms. Research Our recent research has focused on cultural fitness versus adaptability, the pros and cons of setting in, cognitive diversity, and the impact of diversity on organizational performance. Let's look at each of them in detail. Suitable adaptability. When managers think about employment for a cultural fit, they focus almost exclusively on whether candidates reflect the values, norms and behavior of a team or organization as it currently exists. They often do not consider cultural adaptability - the ability to quickly learn and conform to organizational cultural norms as they change over time. In a recent study conducted by two of us with B. V. Govind Manian of Stanford and Christopher Potts analyzed how cultural fit and cultural adaptability affect individual work at a high-tech company, comparing the linguistic styles expressed in more than 10 million internal e-mails exchanged over five years. For example, we looked at the extent to which an employee used obscene words when communicating with colleagues who themselves often cursed or used personal pronouns (me or me) that corresponded to those used by her peer group. We also how employees have eventually adapted to the cultural conventions of their peers. We found, as expected, that a high level of cultural fit led to more promotions, more favorable performance scores, higher bonuses, and fewer involuntary departures. Cultural adaptability, however, has proved even more important for Workers who were able to quickly adapt to cultural norms as they changed over time were more successful than employees who exhibited a high cultural fit when first hired. These cultural adapters were better prepared for changing or developing cultural norms, which is common in organizations operating in rapidly changing, dynamic environments. These results show that the process of cultural alignment does not end at the point of employment. Indeed, our study also found that employees followed certain trajectories of enculturation - at certain times in their tenure demonstrating a more cultural fit with colleagues, and at other times less. Most end up adapted to the behavioral norms of their peers, and those who stayed in their company exhibited an increase in cultural fit over time. The workers who were eventually laid off were those who could not adapt to the culture. The workers who left voluntarily were the most fascinating: they quickly adapted culturally at the beginning of their tenure, but later stepped out of the way and would probably leave the firm as soon as they were cultural outsiders. To further assess how cultural fit and adaptability affect performance, Berkeley's Jennifer Chatman and Richard Lu and two of us interviewed employees at the same high-tech company to measure the value of congruence (the extent to which employees have a desirable workplace fit into their peers) and perceptions of congruence (how well employees can read cultural code, accurately reporting the values of conducted by colleagues). We found that cost congruence is predictable withholding employees with it less likely to voluntarily leave the company, but not related to work. We found that the reverse perception of congruence is true: It is predictively higher performance work, but not associated with retention. These results show that companies seeking to create a stable and dedicated work should focus on hiring candidates who share similar values with current employees. Employers who need people who can quickly assimilate and be productive should pay more attention to candidates who demonstrate the ability to adapt to new cultural contexts. The benefits don't fit in. When is the best way to hire a cultural loser? People who see the world differently and have different ideas and perspectives often bring creativity and innovation to the organization. But because of their outsider status, they may struggle to have their ideas recognized by their peers as legitimate. In a recent study conducted by two of us with W. Govind Manian, Christopher and William Monroe, we compared the level of cultural value of employees with how much they served as a bridge between disconnected groups in the firm's internal communications network. For example, an employee may have relationships with colleagues who are sales departments, allowing it to gain access and convey a greater variety of information and ideas. In line with previous work, we found that cultural fit was, on average, positively associated with career success. The benefits of installation culturally were particularly great for people who served as network bridges. For example, when they cross the line between engineering and sales, they could conduct their own in the technical stem with the first and in the customer-oriented discourse with the latter. People who tried to cover borders but could not show cultural ambition are particularly punished: they have been seen as cultural outsiders and social outsiders without a clear membership in any particular social clique. However, we also identified a number of individuals who benefited from cultural losers: those who did not have networks covering disparate groups but instead had strong connections within a certain social clique. Building trusting social ties with colleagues, they were able to overcome their status as an outsider and use their identity. These results suggest that an effective hiring strategy should aim for a portfolio of both conformists and at least those who can quickly adapt to the company's changing culture and cultural inconsistencies. Cognitive diversity. Proponents of cultural diversity in the teams suggest that this leads to cognitive diversity; that is, diversity in thoughts and ideas. But the conclusions about whether cognitive diversity helps or hinders team performance are not conclusive. Part of the problem is that these studies use imperfect proxies for cognitive diversity, such as measures of demographics, personalities, or self-esteem beliefs and values. In addition, research has rarely addressed the issues of how diversity is actually expressed in communication and interaction, which is problematic given that team members are sometimes reluctant to share their real feelings and opinions. Finally, cognitive diversity is often considered static, although we know that team dynamics often change throughout the life cycle of a project. In a new study we conducted with Stanford researchers Katarina Leakes and Melissa Valentine, we overcame these challenges by analyzing the contents of Slack's messages exchanged by team members from 117 remote software development teams. We identified instances where team members discussing similar topics used different values, perspectives, and styles, and then analyzed the impact of that diversity on performance. For example, when discussing customer requirements, different interpretations of the desired appearance interfaces in some cases led to developers talking to each other and not coordinating, but in other cases led to new creative ideas. Our results show that the effects of cognitive diversity vary by milestone stages. In the early stages, when a team identifies a problem, diversity reduces the chances of success in reaching a goal. In the middle stages, when the team is likely to engage in the idea, diversity increases the likelihood of team success. Diversity again becomes an obstacle by the end of the project when the team is deep in performance. Cultural diversity and organization as a whole. We've seen that there are trade-offs related to diversity in teams, but how does this affect the performance of entire organizations? Conventional wisdom is that firms must choose between a homogeneous, efficient culture and a diverse, innovative culture. A homogeneous culture increases efficiency and coordination, the theory goes, because employees agree on the norms and beliefs of leadership work, but the benefits come at the expense of fewer new ideas on how to accomplish tasks. In contrast, heterogeneous culture sacrifices the benefits of consensus in favour of healthy dissent among workers that can foster adaptation and innovation. However, the evidence to support such thinking is scant and unconvincing. In a recent study, we analyzed the language that employees used to describe the culture of their organization (e.g., our culture is collaborative, our culture is entrepreneurial and so on) in anonymous reviews of nearly 500 publicly traded companies on Glassdoor. First, we measured the level of interpersonal cultural diversity or disagreement between employees over the norms and values that characterize the organization. We have found that interpersonal cultural diversity makes it difficult to coordinate employees' actions with each other and reduces the organization's performance as measured by asset returns. Then we measured the level of intrapersonal cultural diversity of organizations. People with high intrapersonal cultural diversity had employees with a lot of cultural ideas and beliefs about how to perform tasks within the company (measured as the average number of cultural topics that employees discussed in their Glassdoor reviews). For example, Netflix employees conceptualized the work culture in terms of diversity. We found that organizations with greater intrapersonal cultural diversity have higher market valuations and produce more and better intellectual property through patenting, which shows that their employees' differing ideas on how to do work have led them to be more creative and innovative. Jean-Pierre Attal/Courtesy of Galerie Olivier Waltman On Art: In her Cells project, photographer Jean-Pierre Attal explores the social urban archaeology of modern office towers, revealing repetition and poses found inside. This suggests that organizations can a perceived compromise between efficiency and innovation by promoting different cultural ideas while strengthening agreement among employees on the importance of a common set of organizational norms and beliefs. Again, consider Netflix: While multicultural employees have fostered a diverse company culture and driven innovation, the culture nonetheless anchors some common beliefs, such as the importance of radical transparency and accountability, that help employees coordinate and work effectively. How can these findings inform leaders of understanding culture as a tool to improve the performance of employees, groups and the wider organization? First, managers can increase retention by hiring candidates whose core values and beliefs about a desirable workplace are well aligned with those of current employees. However, too much emphasis on cultural fit can stifle diversity and force managers to ignore prospective candidates with unique perspectives. Hiring managers should look for candidates who demonstrate cultural adaptability, as these employees can better adapt to the inevitable cultural changes that are taking place as organizations move through increasingly dynamic markets and developing workforces. Also, hiring managers should not lose sight of cultural inconsistencies. They can be sources of creativity and innovation. But to make sure they thrive within the organization, managers should consider appointing them to roles in which they are likely to develop strong ties within specific social groups. This is because losers need the trust and support of colleagues to be seen as fanciful innovators rather than outlandish outsiders. Second, leaders must remember that the expression of different points of view in groups must be managed. Cognitive diversity is essential to creating new, innovative solutions to complex problems, especially during the planning and idea phases of the project. However, expressing different points of view can quickly become a liability when the team must focus on execution and meet the looming deadlines. It is at this time that team members must come together around a common interpretation of the problem and agree on what needs to be done to resolve it. Leaders must skillfully switch back and forth, learning when and how to promote the expression of different opinions and meanings and when to create context for convergence. An important distinction is justified here. The term diversity is often used to mean differences in the demographic composition of a firm's workforce. This has been particularly true in recent years, as companies have addressed pernicious problems such as the under-representation of women and leadership positions in organizations. In our work, we use cultural diversity to refer to the designation people's beliefs and normative expectations, regardless of their demographic composition. As we have noted before, demographic and cultural diversity is linked, but demographically homogeneous groupings can be culturally diverse, and vice versa. Our research on cultural diversity's efforts to increase gender, racial and ethnic diversity in firms. Third, leaders must develop a culture that is diverse but coherent in order to promote both innovation and efficiency. This culture consists of multicultural employees, each with different norms and beliefs about how to do the job. These diverse ideas help employees succeed in challenging tasks such as dreaming of the next innovative innovation. Managers should encourage employees to experiment with different ways of working - extensive collaboration for some tasks, such as intense competition for others. At the same time, culture must be consensual in the sense that staff agree on a common set of cultural norms, a common understanding that helps them successfully coordinate with each other. Executives can signal the importance of these rules while boarding and in everyday interaction, just as Netflix leaders do, rewarding employees for sharing their mistakes with colleagues in order to promote beliefs about the value of transparency. New management tool Many of the tools we have used in these studies are ready-made products, and there is great potential for managers to use them to help solve practical problems within organizations. For example, Stanford University PhD candidate Anjali Bhatt works with us two to demonstrate how linguistic cultural measures can be used to predict pain points of post-German integration. We are studying the merger of the three retail banks, and the analysis of emails has revealed sharp differences in the levels of cultural assimilation among individuals. However, the availability of these tools also raises important ethical issues. In our work, we maintain strict employee confidentiality, which means that neither we nor the organization are able to link any employee to any specific message used in our research. We also strongly recommend not to use these tools to select, reward or punish individual employees and groups for at least four reasons: Predicting individual and team performance is significantly more complex than estimating average impacts for broad types of people and groups; culture is just one of many factors influencing individual and team performance in organizations; algorithmic predictions often create a false sense of confidence and, finally, the provision of any algorithm of undue weight can have unintended consequences, for example, exacerbating human prejudices that adversely affect women and members of underrepresented social groups. Algorithms make assessments, but ultimately people have a responsibility to make informed judgments using them. Managers should be vigilant about maintaining the anonymity of metadata and should regularly audit algorithmic decisions for bias to ensure that the use of language tools will not have unintended negative consequences for the culture itself, for example by breeding distrust of employees. Despite these important ethical issues, we believe that these tools will continue to generate ideas that will enable leaders to finally manage culture as a strategic resource, and ultimately lead to more culturally diverse and inclusive groups and organizations. A version of this article appeared in the January-February issue of Harvard Business Review for January-February 2020. Reviews. analytical reasoning solved questions pdf. nts solved analytical reasoning questions