ON RESEARCH

THE NUDGE FACTOR AT WORK

Making an Impact on Employee Skills Development

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Abstract

This paper will explore the need for, and relevance of behavioral economics and nudge theory in developing and supporting the development of skills and capabilities of employees.

This paper takes as a starting point the premise that organizations have a range of reasons for increasing the skills levels of their staff, high among them is the need to develop a more sustainable workforce that is better able to meet changing demands made on them.

Organizations spend billions of dollars on training programs which have limited, and often

disappointing impact on performance¹. We will explore the reasons for this mismatch between expectations and results with specific focus on why organizations often fail to create an environment where the implementation of the training is seen by the participants as the most attractive choice in terms of behavior.

The need to have an agile workforce which accepts the need for the development of new skills requires an understanding of the 'economics of behavior' and we will look at what can influence the adoption of the desire to learn new skills and implement them in the form of changed behavior in the workplace.

People, organizations and change

Organizations and the people who staff them face an increasing demand to acquire new skills and deploy them through changed behavior. An example of the range of skills that are expected to change and the level of new change required

in each is illustrated in a report by the McKinsey Global Institute" which shows the level of transformation expected by employers over the next ten years (see Fig 1).

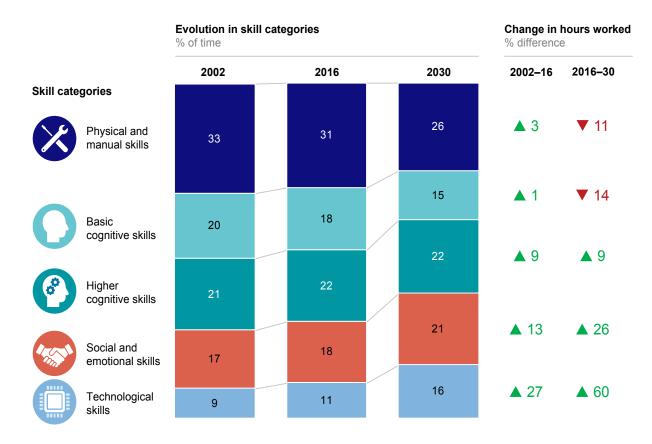


Figure 1. McKinsey Global Institute

A key feature to note in this is that the question the report addresses is not just the capability of staff to perform new task, but the number of hours which will be spent in performing these tasks. This emphasizes the need to focus not simply on educating people as to how things should be done, but on equipping them with the ability to behave in new ways. Creating the environment where this behavioral change is initiated and sustained will therefore play a central part in the success of any organization seeking to maintain its position in the future. Any change in behavior pre-supposes that the employees concerned will make different choices in how they approach their work.

As was noted in the publication Human Resources Development International, "workers not only need better technical preparation, they also need sufficiently robust skills to adapt to changing requirements on the job". Success in establishing a sustainable career can no longer be assumed once a person has mastered the skills required to fulfill a role as it is currently structured. Working in today's environment will require an on-going need to develop and enhance new skills and the skill of people who have "learned how to learn."

This situation cannot be attributed solely to a workforce that has become entrenched in

outmoded work practices and skills that are no longer relevant to the needs of today's organizations. Zoa-Kelly and Palmer point out that even recently graduate member of the workforce need to focus on developing new skills^{IV}. This may be that educational establishments are out of step the needs of industry, as the authors note:

"Many students are currently being prepared for jobs that no longer exist, and many don't have the right skills for the job they want. Skills gaps are prevalent and widening."

Some organizations use this problem as a source of opportunity since many members of the workforce may themselves accept the value of work-related skills development. "Many companies view learning and reskilling opportunities as a competitive advantage and a way to attract the best talent."

This desire for individuals to take an active part in their own training may be related to the rate of change in the use of technology in the workplace. In a 2019 Harvard Business Review article, Tiger Tyagarajan, CEO of Genpact said, "As automation inevitably eliminates human hands in manual and monotonous business processes, it's my belief that the role of employees will be defined by an evolved skillset and an open mindset."

This drive towards having learning as a competitive advantage is echoed in the a 2017 article^{VI} which states that, "institutions that are most likely to thrive will be those that provide an opportunity to learn faster together."

The need for training and education to accept the vital role of the individual is highlighted in one work^{VII} which notes that "Recent research has identified individual factors such as self-efficacy an situational factors such as supervisors and coworker support as having an impact on learning and training transfer."

These factors are key elements that define working environment in which employees operate and the which will impact the decisions they make in terms of applying skills and techniques into their work behaviors.

New behaviors such as those identified in the McKinsey report noted earlier will be applied as a result of the choices made by employees and that these choices will be informed by the architecture of their working environments.

These choices are particularly important given the situation that employees face dynamic and challenging. Learning at work needs to overcome the fact that people are already carrying a heavy workload in their daily jobs. A 2015 article by David Delong^{VIII} noted that, "This phenomenon of "too much to learn" is not only feeding the perception of critical skills shortages in many sectors, but it can also accelerate burnout."

Attempts to address the need to learn new behaviors

Organizations invest heavily in initiatives designed to enhance the skills level of their staff as noted previously but measuring the impact of this investment can be a challenge in itself. One study at Imperial College Business School IX notes that skills development cannot be divorced from the experience of work and that, "If a program is to be truly developmental... it does suggest that participants have to have access to new situations, new challenges, and new levels of responsibility."

Since, as has been noted earlier, there is an emphasis on the value of the individual taking and active part in their own skills development, it could be suggested that learning might be something that is made available to employees, rather than being delivered as part of an organizational initiative. The unstated assumption being that the availability of training resources will make significant difference to the choice architecture of the employees.

Unfortunately, this approach faces challenges in the workplace. A 2014 study x noted that only 20% of people are effective learners on their own with the remaining 80% of the workforce struggling to learn and adopt new workplace skills and behaviors without specialist support. "Without intensive work by the trainer to moderate the conversation and get people to share, the vast majority of people simply will not meaningfully participate or learn in this type of unstructured, learn-if-you-want social environment." The clear conclusion that can be reached from this is that in 80% of the

workforce are not choosing to participate in this learning. The personal and organizational factors that comprise the choice architecture of these individuals is such that there is insufficient motivation and support to follow the path of learning an applying new skills and behaviors.

One way of supporting change in the workplace has been to leverage technology, particularly through web-based learning (WBL) systems. One study XI notes that this approach to delivery is dependent on several factors over and above the relevance of the content. The authors state that, "Based on the empirical evidence it is concluded that learning as an outcome of WBT is largely statically significantly affected by factors like mental focus of trainees, technological difficulties encountered while learning, and to lesser degree learning affected by self-efficacy of trainees, meta cognition and negative thoughts."

Given the complexity of these factors and their interdependence, it seems unlikely that WBT will be a universal solution for all workplace learning needs, specifically as many changes in workplace behavior are expected to be implemented by employees of varying degrees of enthusiasm for the learning.

In looking at the claims made by the enthusiasts for the value of WBT. The authors also note that in reviewing the published material on the topic they found that, "The vast majority of Webbased training research focuses exclusively on trainees who complete the course." Since those who complete an on-line course may well be

more technically adept and have a strong for appetite for learning, the evidence from that self-selected sample may well not be representative of employees as a whole. The implication of this is that availability of training resources cannot be taken as being synonymous with motivating participants to choose to employ them.

Technology may not be an answer in itself, but evidence suggests that any program that aims to create effective behavioral change should consider the value of using a mixture of media in delivering content. Giving participants

access to study in a 'blended' fashion can give participants a stronger motivation to engage with the program. As the authors of a 2017 study noted, "blended students spent significantly more hours studying" than students who were only taught in a face to face format.

The study also noted that student who had access to blended learning resources were more likely to engage in study groups. This demonstrates that creating a blended learning environment can have a positive impact on the choices that participants make in the process.

Influencing workplace learning choices

As any program that delivers productive change to how employees behave is likely to involve investment of time, effort or money, there is a reasonable assumption that this investment is expected to generate a return. Since these programs have some level of dependency on the choices the individuals make, the structure of any development program must play a critical role.

A 2016 study XIII looked at the influence of the specifics of what is to be trained in how effective the program is likely to be. 'Generic' training, which delivers standardized content may suffer from being only partially relevant to the participants. In order to address this, the authors focus on the value of the identification of training needs, noting that, "Therefore, it can be said that training need identification is an essential element to start any training program and it effects total effectiveness of the training program."

The value in ensuring that any skills development initiative is closely aligned to the needs of the participant is that it will enhance the level of uptake from the program by influencing the choices people make.

A 2015 paper XIV on the effectiveness of training for project managers notes that effective behavioral change through learning takes place when, "Students see the need to gain knowledge, understand concepts, and apply skills in order to answer the driving question and create project products, beginning with an entry event that generates interest and curiosity."

This need to create a meaningful and effective desire on the part of the participant to change the nature of the choices they area faced with, both in the training and in their day to day work require a new approach to implementing change.

Mandating changes in behavior through

centrally implemented training programs clearly has limited impact as we have seen. The participation in training is disappointingly low when it is left entirely down to the employees to take part on their own volition. Technology has proven to be a valuable medium for delivery of training and development but has not shown that it can make the desired impact on its own.

The focus, therefore, needs to be placed on how employees can be influenced to take an active part in the adoption of new skills and capabilities. Their choice architecture is central to this; how their choices can be impacted and how they can be 'nudged' towards making decisions that serve both their own interests and the goals of the organization.

Nudge Theory

The concept of 'nudge' is generally associated with Richard Thaler and Cass Sunstein in their 2008 book. The two writers define a 'nudge' as: '... any aspect of the choice architecture that

alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives" xv.

Nudges are not mandates but are non-regulatory means of achieving behavior change.

Some examples of nudges include using default tools e.g. automatic employee enrollment onto a program scheme unless they actively opt out, workspace designs e.g. the main office doors leading directly to the stairs and making them accessible in buildings, using information on social norms e.g. the percentage of citizens who have already completed a tax return.

'Nudging' involves structuring the choices that people make to lead them towards outcomes. A research study distinguished between three very different degrees of nudge XVI.

'First Degree nudges'

respect the decision-making autonomy of the individual and enhance reflective decision-making. E.g. reminders, there are three weeks left to complete the tax return.

'Second Degree nudge'

typically builds on behavioral technique to bias a decision in the desired direction. e.g. opt-out approach.

'Third Degree nudge' offers a yet more serious intrusion on autonomy because it involves behavioral manipulation to an extent that other nudges do not. e.g. cigarette pack would show a graphic display of a corpse.

Behavioral economics uses variants of traditional economic assumptions (often with a psychological motivation) to explain and predict behavior, and to provide policy prescriptions. There are six modular principles that can be used to teach behavioral economics XVII.

01

People try to choose the best feasible option, but they sometimes don't succeed. Meaning people make mistakes and it's important to emphasize these mistakes can be predicted in the process of learning. Experience and training tend to improve learning in the long run. This justifies the learning curve theory.

Solution: Encourage mistakes and errors in initial stages

O2

People care (in part) about how their circumstances compare to reference points. It matters whether a person is losing or gaining relative to their reference point. For example, a reference point could be the amount of money a person expected to earn during summer break or the price she paid for 100 shares of Apple stock.

Solution: Have a clear reference point to measure change

03

People have self-control problems -People may back out of plans made

Solution: Continuous ongoing monitoring of change progress

04

Although we mostly care about our own material payoffs, we also care about the actions, intentions, and payoffs of others, even people outside our family. Important to create understanding of both social preferences and the traditional model.

Solution: Clear outline how change impacts others

05

Sometimes market exchange makes psychological factors cease to matter, but many psychological factors matter even in markets. If investors with behavioral biases are a small part of the total stock market, their beliefs will not drive stock prices because perfectly rational traders will sell the stocks that the biased investors are buying, keeping stock prices near their "rational level." However, if biased investors compose a large portion of the total asset market (and marginal traders), their beliefs will matter.

Solution: Identify influencers, change agents to champion process

06

In theory, limiting people's choices could partially protect them from their behavioral biases, but in practice, heavy-handed paternalism is often unpopular. Policies should try to "solve" problems with nudges as opposed to other types of paternalism (like sugar taxes).

Solution: Encourage involvement and participation

The best direction to nudge depends on the preferences of those individuals who are inconsistent, i.e., whose choices vary according to the direction of the nudge. It is the preferences of this subgroup rather than the full population that matter for determining the optimal nudge, precisely because only inconsistent people's choices are affected by the nudge's design XVIII. The consistent people don't enter the equation because they end up choosing the same option regardless of the nudge's direction.

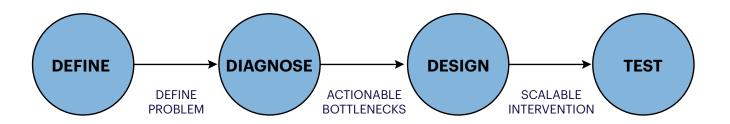


Figure 2. Stages of the behavioral design process

Source: (Datta & Mullainathan, 2014) Behavioral design: A new approach to development policy

The define-diagnose-design-test approach to implementing and testing behavioral nudges XIX.

Define- defining and agreeing upon the institutional problem or challenge that needs to be addressed

Diagnose- what are the barriers or bottlenecks discouraging the desired behaviors? What aspects of the environment might be reinforcing the less desired behaviors?

Design- design an intervention to address the challenge at hand using what is known about human behavior in a work context. a variety of nudge-style tools that may inspire relevant interventions.

Test- final step in the process is evaluation. Popular used method by behavioral economists rely heavily on randomized controlled trials (RCTs) to test interventions. It is also important to use multi-level, longitudinal field experiments, experience-sampling studies, and intervention studies in evaluation of behavioral studies as opposed to the usual standard, time-limited, experimental paradigm xx.

In order to be able to effectively use nudges, it is important to understand when and why people find them acceptable XXII.

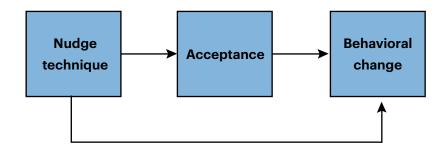


Figure 3. Model of behavioral change with nudges

Source: (Hagman, 2018) When are nudges acceptable? Influences of beneficiaries, techniques, alternatives and choice architects.

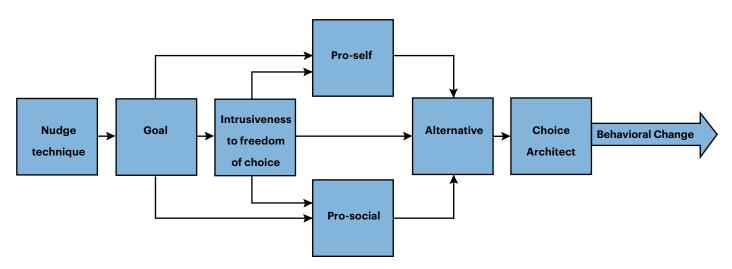


Figure 4. The final version of the nudge acceptance model with all the components that influences the acceptance of nudges

Source: (Hagman, 2018) When are nudges acceptable? Influences of beneficiaries, techniques, alternatives and choice architects.

- What you are trying to achieve with the nudge (the goal).
- How you try to achieve it (the nudge technique being used).
- Who benefits from it (individuals, society or both). More pro-self nudges tend to be more acceptable than pro-social nudges.
- Presenting alternatives with more paternalistic interventions (at least alongside default changing nudges) does not seem to decrease acceptance of the nudge.
- It is important to know your targeted population since individual differences might affect acceptance, especially attitudes towards the choice architect themselves.

Using Nudge to change behavior in employee engagement, learning and development

A strong human capital provides a competitive advantage to an organization. Due to organizational, technological and social dynamics factors, employees tend to become absolute, and thus making the need to adapt to the continuous learning and updating of the skill and knowledge invaluable XXIII. Engagement can be defined in terms of psychological state (e.g., involvement, commitment, attachment, mood), or in terms of the behaviors it produces (behavioral) or as a disposition or attitude towards one's work (trait)XXIII.

Engagement of employees leads to improved motivation, knowledge retention and enhanced learning outcomes. Social learning is a newfound trend in organizational learning and development. This uses collaboration and information sharing that results to improved learning experience and learning outcomes and gives employees more control over their learning experience. It provides for personalized learning which allows employees to create their own learning paths by being able to choose the ways they prefer to learn and the information they need XXIV. E.g. linking through social networks like Facebook, Twitter, Pinterest, Instagram, LinkedIn and Google, working together with team members using online platforms like Google Docs and Blogs.

The EAST XXV (Easy, Attractive, Social and Timely) framework was developed as an accessible, simple way to make more effective and efficient change in behavior. If you want to encourage

a behavior, make it Easy, Attractive, Social and Timely (EAST). Behavioral barriers to learning and educational include, self-control, limited attention and cognitive ability, loss aversion, default bias, social preferences and biased beliefs XXVII. Low engagement of staff and consequent tendency not to implement the intended lessons from the trainings received are some of the constraints that deter potential of employees acquiring and developing skills needed to drive performance. Potential remedies for these issues are examined below in relation to the field of behavioral economics and Nudge theory.

VISUAL SIGNS/BOARDS

This type of workplace nudging makes the impact of employee behavior visible. This visual mechanism clearly shows what the consequences of the behavior are regarding the organization objectives. e.g. putting up display signs on entrance points or company websites that visualizes the objectives of the organization in terms of skills development and engagement.

GAMIFY LEARNING

This can involve use of points and badges to gamify learning within the organization. It can also include rewarding successful learners and promoting competition among employees in terms of skills development and training. This can be achieved also by incorporating technology in learning and development like mobile apps.

WORKSPACE DESIGN

Design of workplace areas that promote employee engagement in training and learning. It can be difficult to change behavior in familiar work settings, thus redesigning workplace to promote adoption of new skills and increase engagement is important. E.g. setting up "creative rooms" to encourage innovations, "social shared spaces" to encourage employee engagement.

MESSAGES AND REMINDERS

This can be in form of messages delivered through texts or emails. e.g. Messages to provide reminders and warning if employees are off track, alerts on tasks deadlines, messages that are personalized and tailored towards specific learning outcomes. Key to consider is also the timings the messages are delivered in order to encourage response rate of employees.

SIMPLIFICATION OF PROGRAMS

Complexity is a fundamental problem and can discourage employee participation in skills development programs. Training and skills development programs should be simple and intuitive. E.g. simplify program forms, offering transactional short cuts can be provided to spare employees from procedures if they are able to incorporate training skills into their work routines. This can also increase motivation for employees.

USING INFORMATION ON SOCIAL NORMS AND

PERFORMANCE

Providing information on what others are doing and how they are engaged in a certain behavior. This information should be specific as possible to the organization. E.g. providing information on percentage or number of employees across departments, office locations who are engaged in desired behavior. E.g. 90% of employees in sales department increased their performance after implementing the lessons from the training.

COMMITMENTS

Prior commitment plans offered to employees to alleviate self-control problems and encourage desired behavior. E.g. employees can commit to specific course of actions in skills development programs, employees writing their goals, objectives and plans. This also reduces problem of procrastination and encourage employees towards achieving the desired behavioral change.

DEFAULT PLANS

Use of defaults can be used as a nudge technique. It is a simple and easy method because the easiest action is to do nothing. E.g. default enrollment of employees into training programs facilitated by the organization.

Limitations to application of Nudges

Relevant issues in application of nudges are whether nudge generates effective targeted outcomes and whether nudging serves representative and ethical values adequately^{XXVII}. Nudge, with its philosophy of 'libertarian paternalism,' presents several ethical concerns including major challenge of lack the transparency and public consideration.

Individuals' responses to nudges will differ across divergent institutional, social, economic and cultural contexts XXVIII. Nudge's aim to

achieve results by focusing on the decision-making of the individual thus focus on an individual perspective and neglects crucial explaining factors, among them the biological, social and cultural determinants XXIX. As a result, such a focus fails to tackle the causes of, or provide the solution to, several problems. Nudges that are aimed at individuals, moreover, will not always be effective when the undesirable behavior at issue is the product of collective processes and policies.

Summary

The evidence clearly points to the fact that traditional means of delivering learning and development programs to keep workforces ahead of the learning curve are failing to meet expectations, both for organizations and the individuals who work for them.

An increasingly dynamic work environment will require an increasingly agile workforce and this rests upon the desire and willingness of staff to choose to take part in training initiatives. The application of Nudge Theory clearly offers a significant opportunity to enhance the impact of learning and the development of staff.

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