





The Arrival of Personalized Learning

Transform L&D to reap a high return on learning









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Executive Summary

The era of personalization has arrived. Thanks to advances in digital technology, many aspects of our lives are impacted by the ability to personalize. We receive personalized online ads, personalized music and movie recommendations, and personalized services at hotels, to name just a few.

Yet when it comes to learning, the personalization journey has been painfully slow. In the corporate environment, most content is developed for mass groups of learners. Learners themselves tend to have little choice in what content they use and how it's delivered.

Multiple drivers are, however, quickly changing this picture. In this report, we examine these drivers and examine the current and future state of personalized learning.

About this Survey

The survey "The Personalization of Learning" was conducted between September and November of 2017. Our sample was based on 449 HR respondents. Half the sample were from companies primarily operating in the U.S. with their workforce primarily being U.S. based. The remainder came from companies outside the U.S. or companies who employed people both within and outside the U.S. Forty-one percent of the organizations that responded had more than one thousand employees. All major industry sectors were included in the sample.

Adobe Systems Inc. partnered with HR.com to conduct this research. Adobe is dedicated to the design and delivery of exceptional digital experiences, including personalized workplace learning.

Below is an overview of some of the key findings from the study.

Three-quarters of respondents said their organizations view personalized learning as important. Yet, only 22% of respondents consider their organization to be very successful or successful at providing personalized learning content.

The future will bring an increase in personalized learning. Over three-fifths of participants expect an increase in the amount of personalized learning over the next three years.





A third said their organizations are not using any technology tools to deliver personalized learning content. Only about half use a learning management system (LMS) to deliver such content. The ability to both develop and deliver personalized content depends heavily on modern technologies.

Most (86%) said that addressing learners' skills gaps is critical to providing personalized learning. Another 74% reported that addressing the future aspirations of the learner is a critical feature. Personalized learning has the potential to both improve current job performance and enable employees to develop the skills required for future roles and careers.

Over half indicated it is crucial for personalized learning to provide learning recommendations based on job needs and career goals. With increases in functionality, personalized learning systems will need not only to offer learner choices but to guide smart choices. In fact, 94% said that the ability to make learner recommendations enhances the personalized learning experience.

Learning is moving from static to interactive. Sixty-four percent of the respondents chose interactive media as the most effective way to deliver personalized learning content, the top choice. Only 27% chose the "written word" as the most effective way. Yet, most learning content today is still text-based.

Sixty-two percent considered blended learning to be the most important key to the *delivery* of personalized learning. E-learning, collaborative learning, and instructor-led learning were also top choices. Future learning environments will require a mix of various delivery options, blended together to meet the needs of the learner and their organizations.

A personalized learning approach is not simple to achieve, but the payoffs are well worth the effort. Eighty-five percent of our participants felt that personalized learning will lead to better learning engagement. Over four-fifths expected it would lead to better learning outcomes. Indeed, respondents who felt their organizations' personalized learning implementations were successful reported much greater overall learning and development success.





The Emergence of Personalized Learning

There are numerous definitions of personalized learning, but one of the simplest states that it is the customized delivery of the learning content that is most appropriate to a specific person at the time she or he most needs and wants it.

Personalized learning can trace its roots back at least as far as Alexander the Great's personal tutor, Aristotle. Over the centuries, there have been numerous forms of so-called personalized learning. Many of these early efforts¹ found their way into K-12 education, with the Montessori method being a well-known example. However, it was not until recently that personalized learning made its way into corporate education, in a large part enabled by modern technologies.

Personalization will likely become one of the most significant historical paradigm shifts in the way we learn. To stay abreast of accelerating change, learners will require training that can be accessed when they need it, wherever they happen to be located, and on whatever device they're carrying.

¹ Watters, Audrey. "The Histories of Personalized Learning." Hack Education. June 9, 2017. From http://hackeducation.com/2017/06/09/personalization





The Growth and Importance of Personalized Learning

In this section, we explore the prevalence of personalized learning and the challenges organizations face in their implementations of such learning.

Finding: Three-quarters of organizations view personalized learning as important

Continued emphasis on personalized learning is changing the face of workforce development, perhaps more so than any other learning trend in the past several decades. A full three-quarters of our survey respondents said their organization views personalized learning content as important.

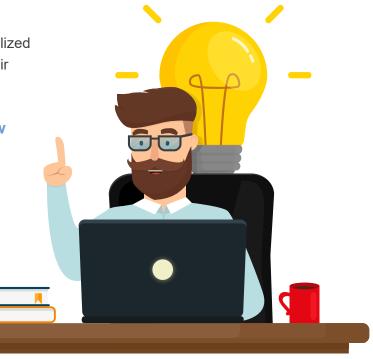
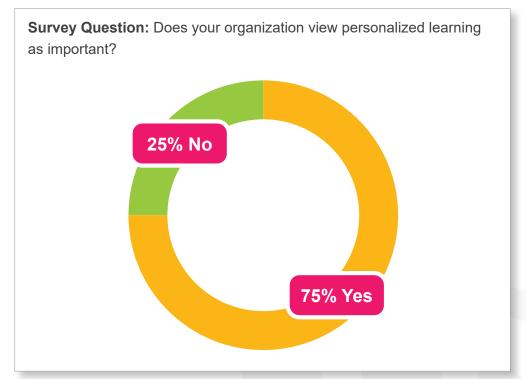


Figure 1





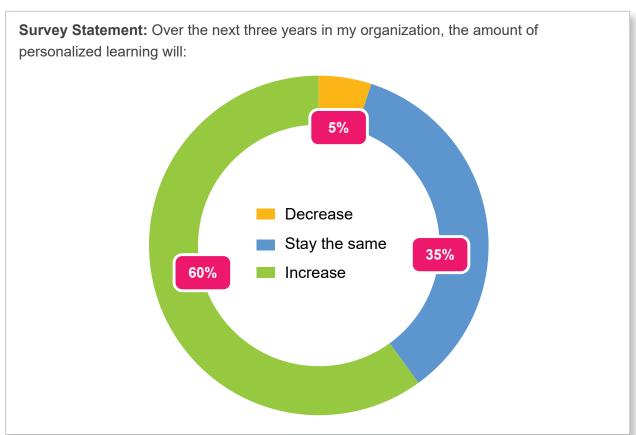


Finding: Personalized learning will grow even more important in the near future

The trend is not likely to abate. Sixtypercent of respondents expect to see a rise in personalized learning in their own organizations over the next three years. Only 5% expect a decrease.



Figure 2







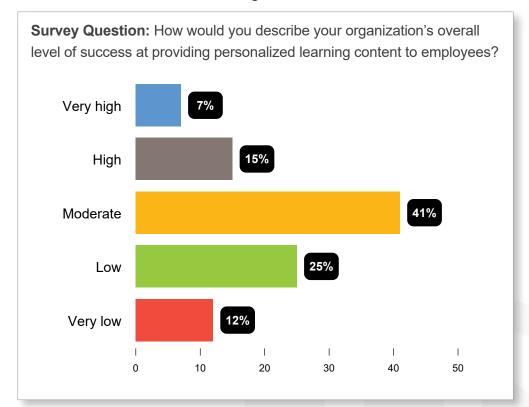


The Challenges Facing Personalized Learning

Finding: Few organizations are delivering personalized learning very successfully

As shown in Figure 3, barriers to success remain. Only 22% rated their organization's success with personalized learning as very high or high. Thirty-seven percent are on the other end of the continuum, rating their success rates low or very low.

Figure 3







Part of our analysis involved comparing organizations that reported their success rates as very high or high to those that rated their success rates as moderate, low or very low. The purpose of this analysis is to provide a better sense of what really drives successful personalized learning.

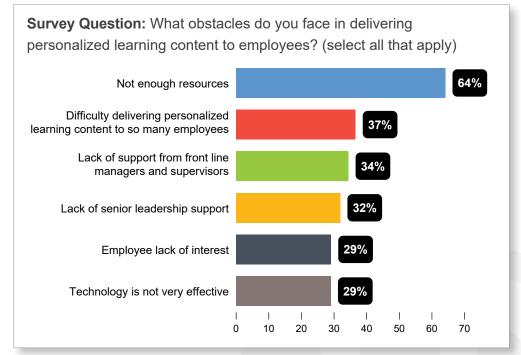
For future reference, we will refer to the following:

- High Personalized-Learning Success organizations (HPS): These respondents described their organization's overall level of success at providing personal learning content to employees as high or very high.
- Lower Personalized-Learning Success organizations
 (LPS): These respondents described their organization's overall level
 of success at providing personal learning content to employees as
 moderate, low or very low.

Finding: The top barrier to delivering personalized learning is a lack of resources

Since fewer than one in four report high personalized learning success, there must be barriers to such success. Figure 4 shows the top six barriers reported by survey participants. Insufficient resources tops the list at 64%.

Figure 4







It's true that personalized learning tends to come with certain costs. They include, among other factors, early implementation investments in content and technology. Yet, as we will see later in the report, the returns can be well worth the investment. Moreover, as with most technology trends, associated costs will likely decline as technologies improve and competition among providers increases.

Lack of support by both senior and front-line leaders are also reported

as common barriers. Perhaps these leaders are concerned with resources, or perhaps personalized learning is not yet on their list of priorities. As the perceived value of personalized learning rises, these attitudes may change.

Of interest are some of the differences between those organizations with high personalized learning success (HPS) and those with lower success rates (LPS). In general, the HPS organizations are less likely to experience many of the barriers to the same degree as the LPS organizations. For example, 36% of LPS organizations reported a lack of senior level support as a barrier, while only half that amount, 16%, saw that as a barrier in the HPS sample.



The Delivery of Personalized Learning

In this section, we focus on the findings related to the tools and systems behind personalized learning. Without "best-in-class" technologies to create, deliver and manage content, real personalized learning tends to be severely limited.

Finding: Learning management systems tend to be the backbone of personalized learning

Widespread use of personalized learning approaches would be near impossible without an ever-evolving technology backbone. Personalized learning is not just about the content. It includes a company's ability to personalize the technology to the needs of the organization and learners.





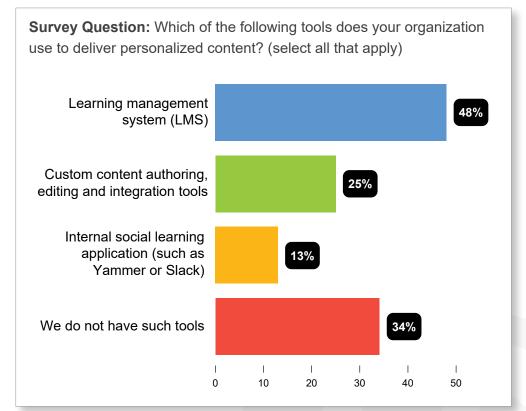
Figure 5 show the tools organizations are currently using to deliver personalized content across the entire sample.

Learning management systems (LMS) are at the top, with close to half of organizations reporting their use. One in four report the use of content management systems, which allow for efficient authoring, editing and integration of learning assets. Only 13% use social learning applications. Social learning holds great future promise, however, as it provides a way for employees to learn from one another.

Our biggest concern? One in three have no tools at all. The use of these tools differs considerably between HPS and LPS organizations. Organizations with higher personalized learning success rates are more likely to deploy every one of the technologies in Figure 5. For example, 62% of the HPS sample report using learning management systems, compared to 43% in the LPS samples. Similarly, HPS organizations are twice as likely as LPS organizations to use content authoring systems.



Figure 5







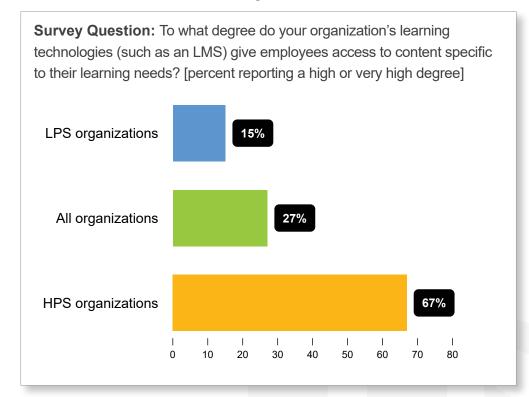
Finding: Few organizations have technologies that do a good job of delivering personalized learning content

An underlying premise of personalized learning is that an organization can provide employees with access to content they really need exactly when they need it. This is an aspiration only partially realized by many current technologies. As shown in Figure 3, only 22% of our overall respondent sample indicated that their learning technologies are highly successful at providing personalized content to their employees.

This is a practice where the differences between the HPS and LPS samples are substantial. Sixty-seven percent of the HPS cohort report a high or very high degree of success in the ability of their current technologies to provide learner-specific content. This drops to a mere 15% for the LPS sample, more than a four-fold difference. This difference might very well be due to the functionality and features of their chosen learning technology platforms.

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Figure 6







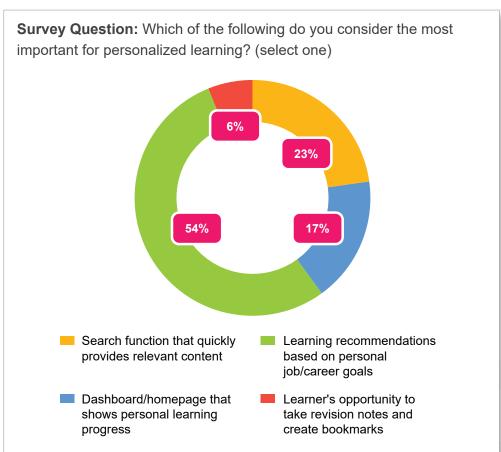
Finding: It is critical to allow learners to make choices based on their goals

We asked participants to choose the single most important feature of a personalized learning platform. As shown in Figure 7, more than half chose the ability to make personal recommendations based on job and career goals. In a parallel question, we asked respondents whether they thought the ability of a platform to make learner recommendations would enhance the personalized learning experience. An overwhelming 94% said yes. We can conclude that systems that provide recommendations (sometimes known as recommendation engines) are likely to have a high payoff for learners and their organizations.

In terms of other features, 23% chose the need for a search function that could provide the learner with quick access to content, and 17% opted for a dashboard that could show personal learning progress.



Figure 7



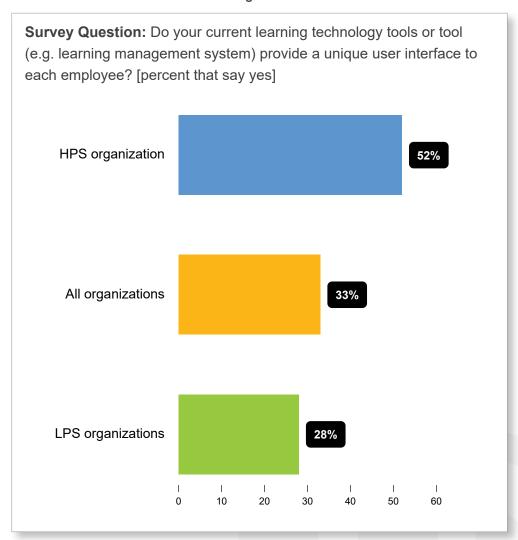




In a related question, we asked about the ability of respondents' platforms to provide a unique interface for each employee. Only one in three respondents felt their organization provided such an interface. However, the responses to this item differ significantly between the HPS and LPS sub-samples. Fifty-two percent of the HPS organizations had this functionality versus 28% of LPS organizations.



Figure 8







Finding: Recommendation prompts are a crucial component of learning dashboards

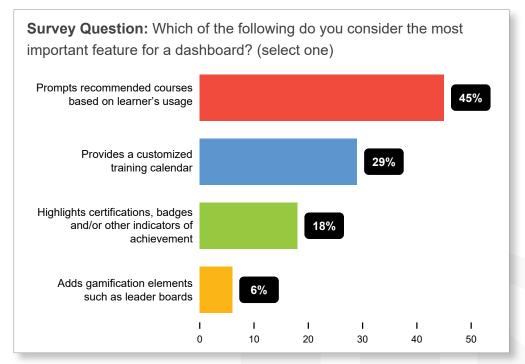
As previously mentioned, only 17% of our respondents considered a dashboard showing learning progress as the most important feature of personalized learning. This percentage makes sense given the relative importance of other choices for this item.

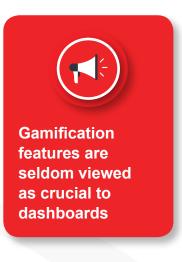
However, a dashboard is still an essential component when its functionality provides information targeted to an individual user. In fact, it is often the first thing a learner sees, and it should provide employees with a road map for current and future learning needs. It can help a learner track progress, view recommended learning experiences, and display certifications. A dashboard serves as the "home page" of a personalized learning experience.

We asked respondents to indicate the features they felt were most important to a learning dashboard. As shown in Figure 9, the most important feature by far is the prompting of recommended courses based on the learner's usage. The second most important feature was a customized calendar of upcoming training opportunities.



Figure 9







Personalizing Content: What Learners Really Want

Personalized learning relies on two intertwined factors: personalized content and tools to deliver that content. In the section, we will look at findings related to personalized content.

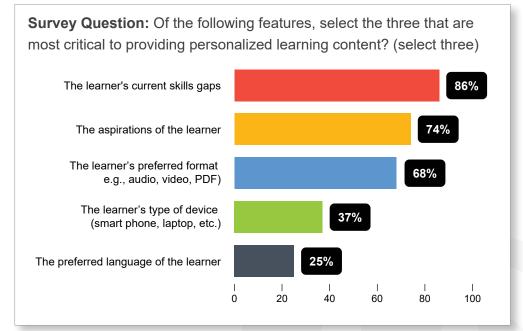
Finding: Skills gaps and future aspirations drive content delivery

We explored the most critical features in providing personalized content. At the top of the list of features is "the learner's current skill gaps." It is a waste of resources and potentially learner engagement when content is "forced" on learners regardless of their current skill levels. Self-perception and/or various forms of assessment should feed a learner the content they need.

The second most important feature is "the aspirations of the learner." Wanting to learn something is a major factor in driving personal development. Aspirations can also include longer-term career goals, which may well require new skills and learning paths. This can be a big advantage to employer and employee alike. It ultimately provides the organization with greater bench strength and the employee with clear future career paths.



Figure 10







Preferred learning format ranks third. More and more, learners expect systems to deliver content through multiple devices. However, it can be problematic to offer all content in multiple formats due to the cost of development or the nature of the content itself.

Finding: Learners want interactivity

Respondents were asked to pick which media were most effective for personalized learning. As shown in Figure 11, the top answer, by far, was interactive media (64%). This refers to online games, labs, quizzes, polls, etc.

Video and collaborative learning (e.g. social learning, discussion boards, chats) were virtually tied for second place. Fewer respondents chose written and audio content, perhaps because these are easier to develop but not always very engaging.

It is important to keep in mind the type of devices that the learner will be using. For example, SCORM-based Learning Management Systems may require use of a browser and be consumed in-house. Other specifications such as xAPI can transfer multiple forms of learning content to mobile devices.

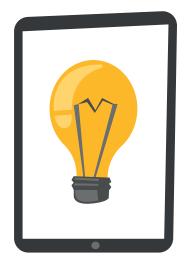
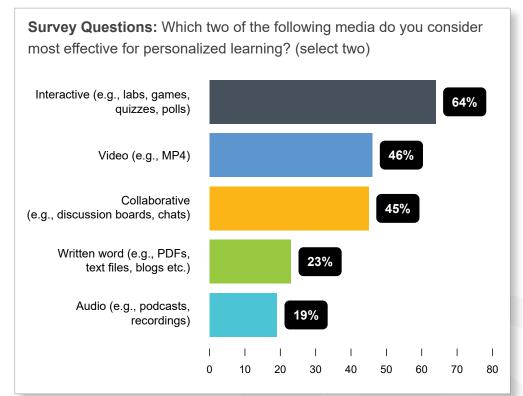


Figure 11







Finding: One size does not fit all, so blended learning is key

Thanks to technology, learning comes in many forms these days. But which method is most important? As shown in Figure 12, the top answer is a combination of forms: that is, blended learning. Blended learning is traditionally a combination of digital and instructor-led learning, though other blends of learning methods increasingly apply.

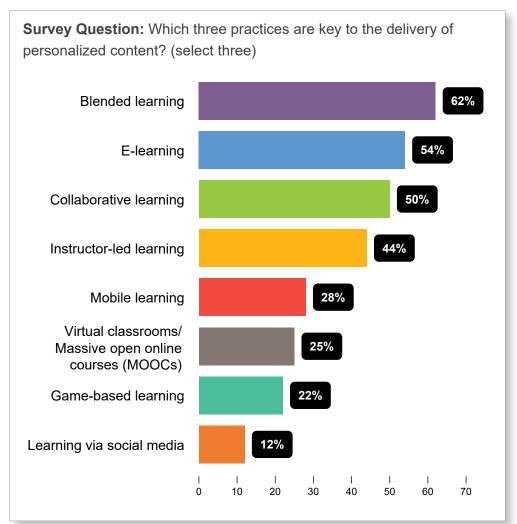
After blended learning (62%), the other top choices include e-learning, collaborative learning and instructor-led learning. These three types can, of course, be components of blended learning. We should note that instructor-led training tends to occur in classroom settings and so is more difficult to tailor to individual learners, which is probably why it is cited less often than various other forms.

The key to meaningful learning experiences tends to be the ability to craft learning experiences that use a variety of methods, taking into consideration the end-goals of the development and the preferences of the learner. There are growing numbers of options, and it is interesting to note that mobile, social media-based, and game-based all garnered responses. The implication for LMS and other personalized learning technologies is that it should accommodate the delivery of varied forms of content.





Figure 12









Finding: Experiential learning dominates informal personalized-learning methods

The learning methods noted above are often grouped into the category called formal learning, but much personalized learning also occurs on an informal basis. To learn more about the informal side, we asked participants about the approaches they used to deliver personalized content. After all, some learning theories and models propose that a majority of learning occurs informally on the job as a result of challenging assignments while lesser proportions of learning occur through developmental relations (e.g., coaches) or through formal coursework and training.

As Figure 13 shows, seventy-percent of the respondents said their organizations use experiential/on—the-job learning to deliver personalized learning. Coaching and mentoring took a close second place at 66%. The bottom line is that personalization should be viewed as having both formal and informal components, and it must encompass both technology-based and human-based learning methods.



Figure 13







The Personalized Learning Payoffs

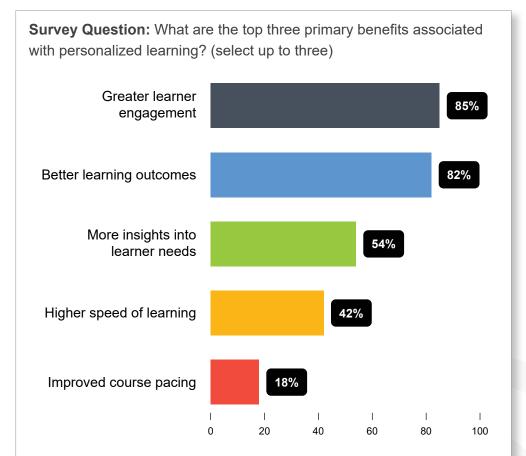
While personalized learning will likely require new investment and considerable organizational support, the benefits are potentially enormous. In this section, we take a closer look at the potential outcomes from a well-crafted and implemented personalized learning strategy.

Finding: Personalization results in greater engagement and better learning outcomes

Although learning experts and practitioners have long preached about the benefits of personalized learning, empirical data has been in relatively short supply. In this study, we asked about the benefits of personalized learning and its impact on performance. Figure 14 shows the top five potential benefits.

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Figure 14







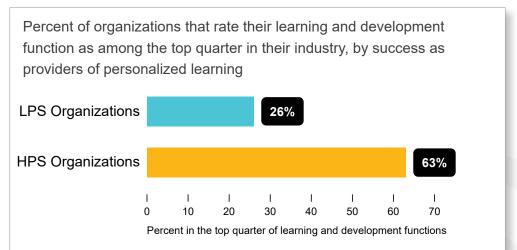
Greater learner engagement tops the list (85%), closely followed by improved learning outcomes (82%). Of course, we could expect these two items to go hand-in-hand, with greater engagement leading to more successful learning. In a parallel question, we asked respondents if they thought personalized learning is having an impact on the performance of employees. Eighty-one percent reported that it is having a very high or high degree of impact on performance.

Given these findings, we would expect personalized learning to be an efficient solution to raising learning success and improving employee productivity. Indeed, some proponents predict that personalized learning will reduce training costs by providing learners only with the content they need and want.

Finding: Organizations with higher personalized learning success enjoy better overall L&D performance

Our analysis also included a comparison of personalized learning success and the overall success of the learning and development function. High Personalized-Learning Success organizations, or HPS, are much more likely than their Lower Personalized-Learning Success organizations, or LPS, to say they are among the top quartile of L&D performers in their industries. In other words, based on self reports, there is a high correlation between the overall success of L&D functions and the degree to which those functions are successful in terms of providing employees with personalized learning content. Of course, correlation does not necessarily indicate causation, but these findings do support a possible linkage.

Figure 15











Top Takeaways and Insights

1

Build an outcome-centered business case. Limited resources and lack of leadership support are two of the biggest barriers to a successful implementation. These factors are intertwined and could indicate the lack of a strong initial business case. There are a number of potential benefits of personalized learning including higher learner engagement, better learning outcomes, a higher speed of learning, and overall improved quality of L&D efforts. These can be quantified for your own organization and help you build support.

2

Create a strong technology backbone. The advent of personalized learning has been made possible, in large, by better technology. Yet, less than half of the respondents indicated their organizations use an LMS to deliver personalized content. An even smaller percentage indicate they are using internal social applications or custom content tools to deliver such learning. This lack of appropriate technologies makes it very difficult to both create and deploy personalized learning content effectively and efficiently across hundreds (or even thousands) of learners. This is borne out by the differences we revealed between those organizations that have made considerable progress in personalized learning and those who have not. The high progress organizations are far more likely to use learning technology as part of their personalized learning efforts.

3

Migrate from push to pull learning. The original purpose of learning management systems was to push learning out and manage and track learner progress. In some ways, it was the antithesis of personalized learning. These days, LMS must increasingly pull in learners by accommodating their individual needs. They must help determine learner gaps, create individual development paths based on learner needs, and allow learners to easily pull the content they need and want.



4

Move from static to interactive content. Younger and older workers alike are becoming more attuned to visual and interactive learning formats. They want to be engaged in meaningful and media-rich learning experiences. Moreover, accustomed as they are to social media, they also want to communicate and collaborate more. Learning content, in a variety of formats, will increasingly be developed and shared by learners themselves, across organizational and geographical boundaries.

5

Mix it up. Personalizing learning is not just about the content itself. Our research explored numerous factors that play into learner preferences. These include types of devices, the form in which content is consumed (e.g. visual, written, games), and where the content is delivered (e.g. digitally or in a classroom). We also looked at the learning approaches that work in parallel with personalized content. Coaching/mentoring, experiential learning, and job-shadowing all lend themselves to personalization. The delivery of personalized learning will not be pitting these alternatives against one another. Rather, they will continue to be blended together in ways that take into account the needs of the organization, the subjects/topics being addressed, and the needs of the learners.

6

Leverage the potential of learning analytics. Personalized learning both relies on and potentially provides richer learning data. It can show which kinds of learning are most widely used, how often, where, and on what kinds of devices. Taking it a step further, analytics might even be used to show relationships between LMS usage rates and actual changes in team or individual performance levels.

7

Evolve the role of L&D professionals. As organizations evolve toward personalized learning approaches, so too must the role of the learning professionals. They will need to be adept at the design of blended learning experiences. They will need skills and knowledge to explore and implement learning technologies that can be customized to individuals. And, they will need to embrace analytics to help guide learners to the most effective learning activities.



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