Reimagining Virtual Learning

How IBM transformed virtual learning
by starting with learning outcomes –
and delivered beyond the possible

Deb Bubb
Vice President and Chief Leadership,
Learning & Inclusion Officer
IBM CHQ, Human Resources

Paula Cushing
Director, Sales & Industry Learning
IBM CHQ, Human Resources

Connie Cassarino
Learning Strategist
IBM CHQ, Human Resources

Outline

1. Executive Summary

In the first half of 2020, a global pandemic challenged businesses, employees, and families around the world. One of those challenges was physical distancing and its impact on virtual learning. This challenge caused us to step back and re-think our virtual learning methodology, and in doing so enabled us to completely reimagine virtual learning.

IBM is no stranger to transformation. Our company has a culture deep rooted in growth mindset and principles revered for uniting and working as one. We saw the call to action in H1 to make all human interactions virtual as an opportunity to restlessly reinvent what virtual learning could be. Learning teams from the first moment of shut down had a host of potential barriers. IBM had an entire classroom catalogue of worldwide offerings we needed to review and at the same time, we had to ensure IBMers had the digital tools and skills they needed in order to work remotely. From the outset, designers, technologists, and facilitators were fraught with concerns over resources and response rate. IBM had to ensure 350K IBMers around the world had complete access to

the learning they needed to continuously grow their skills – without interruption.

We double-downed with tenacity. We completely lifted the lid up and over by reimagining what was considered by most as possible for virtual learning. Our re-design efforts for virtual learning yielded results beyond what we had hoped. Continuous learning behavior was shown in learning hours where the average learning per employee hit 41 hours. This is an increase by 25 hours from 1Q and +7 hours YoY. Learning consumption was not negatively impacted by virtual learning and in fact we see a steady 40% learning commitment rate in AI, Cloud, and Security. Teams rallied under the sponsorship of IBM executive leadership to deliver outcomes on how to work and how to live in new unprecedented times via a Leadership Live series hosting renowned guest speakers who shared a view on Positive Leadership, Resilience, and Entrepreneurial mindset topics. Teams delivered too learning for the entire family – making it easy for families of IBM to join a paramount focus on continuing the learning journey.

This is our story based on our transformation. In this white paper we intend to share how we:

- used learning outcomes as the nucleus of every decision point,

- applied neuroscience, digital tools, and playful purpose in our design techniques,

- used guides and playbooks to have a thoughtful discussion around choices for virtual learning and guidance around metrics

As you embark on ways to reimagine learning, we hope to inspire you to start with the learning outcomes. And in doing so, you will experience a powerful transformation and rewarding method for learning virtually.
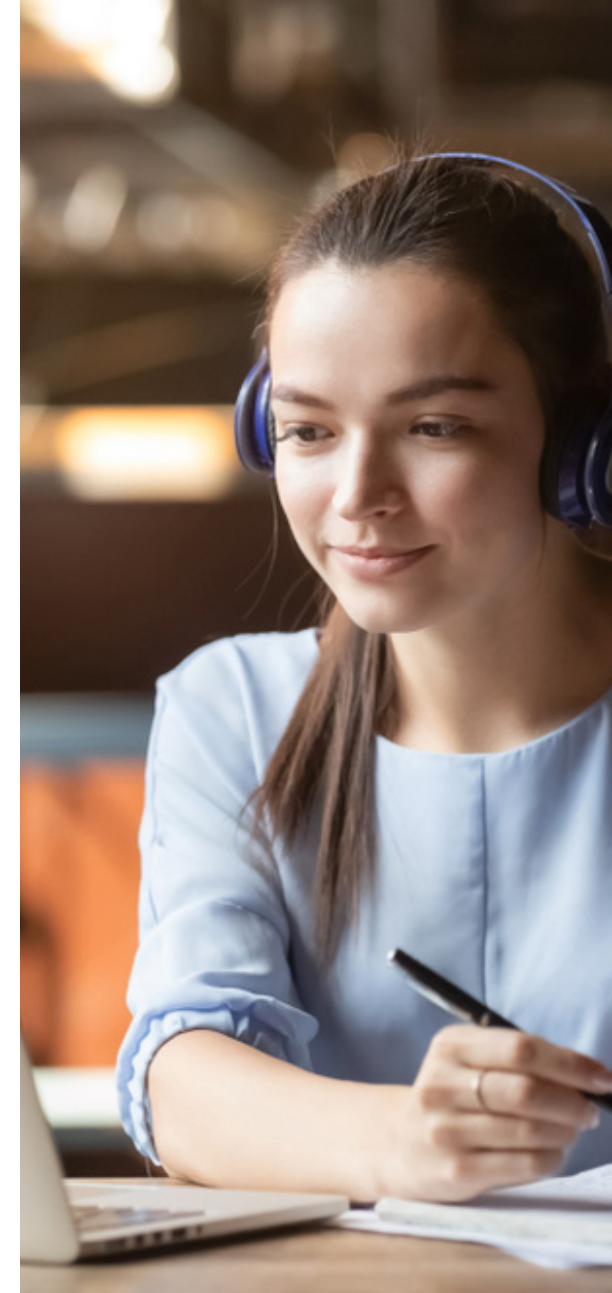
1. Executive Summary

This paper is divided into 3 parts.

1. The first part is focused on defining types of live virtual environments (classroom and event), and the criticality of focusing on learning outcomes.

2. The middle section is focused on the methods of virtual learning – taking into account neuroscience, digital transformation tools such as the IBM Innovation Jam, and incorporating the purposeful intent into virtual learning.

3. The last section provides conversation guides for teams who are investing in or redesigning learning.

References to learning outcomes are used throughout this paper. Learning outcomes are very broad and vary across organizations – we address this in the paper by referencing domains at a high level. For example, leadership, sales, and product training are used to think through the variety of outcomes based on the intent of these areas.

The summary chapters of this paper provide deeper insights. You'll gain insights from the perspective of our learners – who form a reaction to what it is like to learn virtually. And you'll gain insights from our Covid-19 Taskforce team, who form a reaction to the abrupt halt in the first half of 2020 to face-to-face social interaction and embracing a renaissance moment to thrive in a virtual learning environment.

2. Key Take-Aways

This point of view white paper establishes direction on how an enterprise can apply best practices for virtual learning and selection of key technologies.

The intent of this paper is to provide a benchmark of discussion points for teams and businesses across the globe to consider and ultimately thrive in a renown way of learning and working.

Key take aways include:

IBM's transformation story – in terms of how we evaluated our classroom offerings and thought through the "right-sizing" from traditional to virtual

Learning science – best practices for virtual collaboration and learning

Multi-sensory, play and purpose – leveraging digital tools to promote teaming and collaboration

Choosing modality and teaching approaches – a modality selection tool to inform criteria on solution and teaching approach

Virtual delivery events – how teams can have a meaningful discussion on virtual delivery technologies in the marketplace today
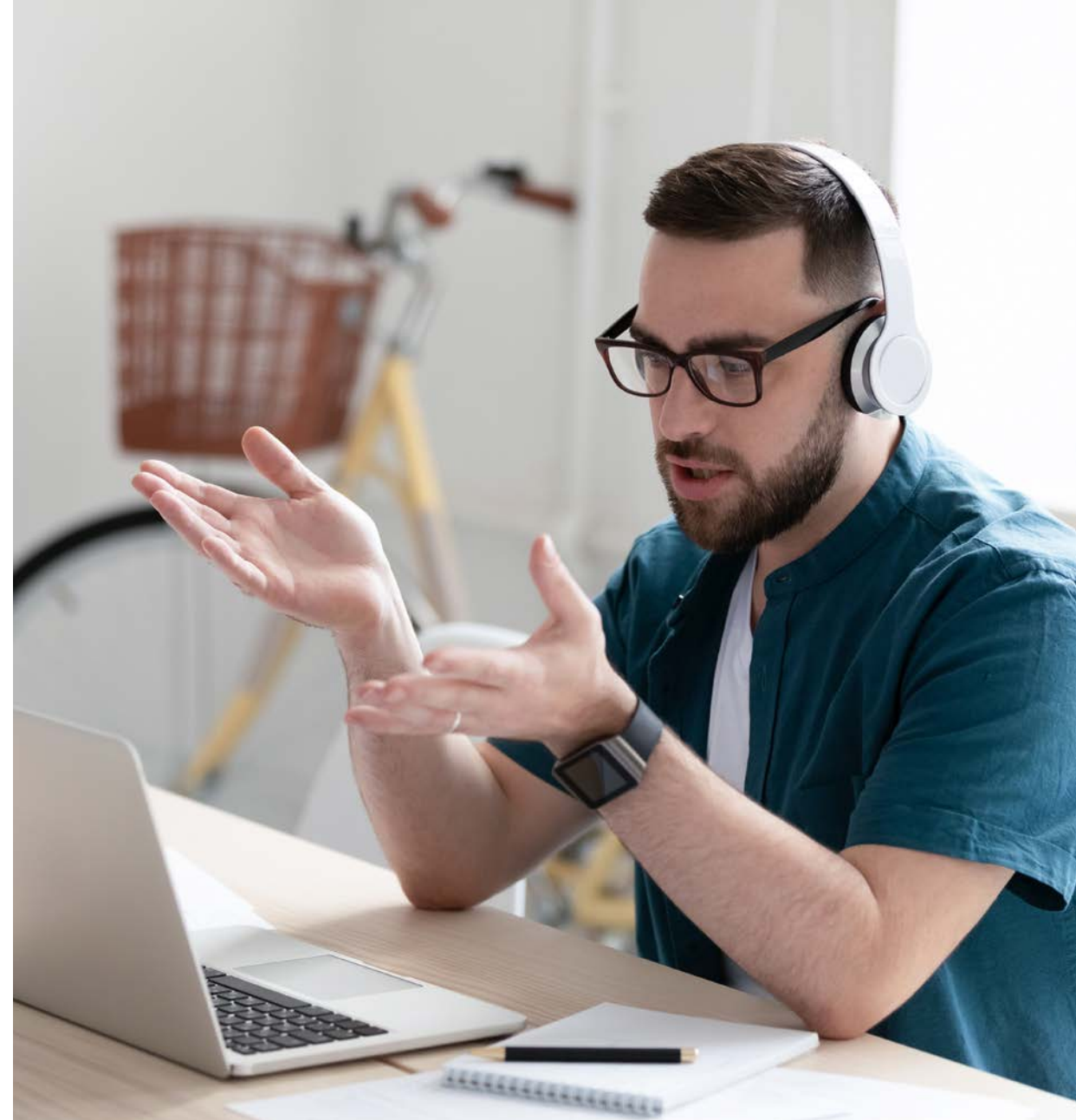
3.Types of Virtual Environments

Lively discussion, analytical decision making, and at times, a healthy debate is something we have all been a part of when it comes to defining a virtual environment. This is why we included a chapter called, word worthy – to set the bar on definitions around a common set of words used in conversation when describing virtual learning.

We slice virtual environments into 2 equal parts – virtual classroom and virtual events.

There are multiple types of environments but for purposes of this paper; we focus on these two for learning.

The following chart is a diagram listing common attributes for both these environments.

These two are an important beginning to this point of view paper – and serve to set the stage.

References to virtual learning are made throughout this paper, and we believe the neuroscience, stickiness, and elements of cognition happen in both these types of environments.

- Key attributes are listed in the diagram to help distinguish the differences between them both

- The Live Virtual Classroom (LVC), is typically set apart from the Live Virtual Event by the use of learning objectives, testing, and graded assignments. LVC is an impeccable choice for role play, simulation, and deep skill development.

- The Live Virtual Classroom is best suited for groups of 15-30 whereas, the Live Virtual Event can accommodate much larger audiences or learning cohorts.

- Live Virtual Events are a perfect fit for creating alignment, key messaging, and can accommodate large audience size. They offer quick impact by using social interaction and polling through live chats and flawless when it comes to providing a platform for sharing expertise to large groups.

- Both are not mutually exclusive of each other and can in some instances be used together as a hybrid offering. This blend can offer a powerful platform for key messaging for a large audience and then offer smaller, more intimate breakouts for teams to practice outcomes or discuss at a deeper level key concepts.

Many organizations during Covid-19 faced the reality of using both these environments to move forward; and in many cases – faced "right sizing" from face-to-face scenarios to virtual class or virtual events.

Online learning & teaching environment

Virtual **Classroom**
Key Attributes

- Testing
- Feedback
- Course integration | LMS
- Chat | Social networking
- Group | Individual assignments (graded)
- Breakout session(s)

Sessions led by industry thought leaders

Virtual **Events**
Key Attributes

- Main tent
- Hands-on lab(s)
- Town halls
- Keynote
- Breakout session(s)
- Poster session(s)
- Chat | Social networking
- Lobby, auditorium

4. Executive perspectives

Teams were appealing to re-design; but chose a methodical approach to "right-size."
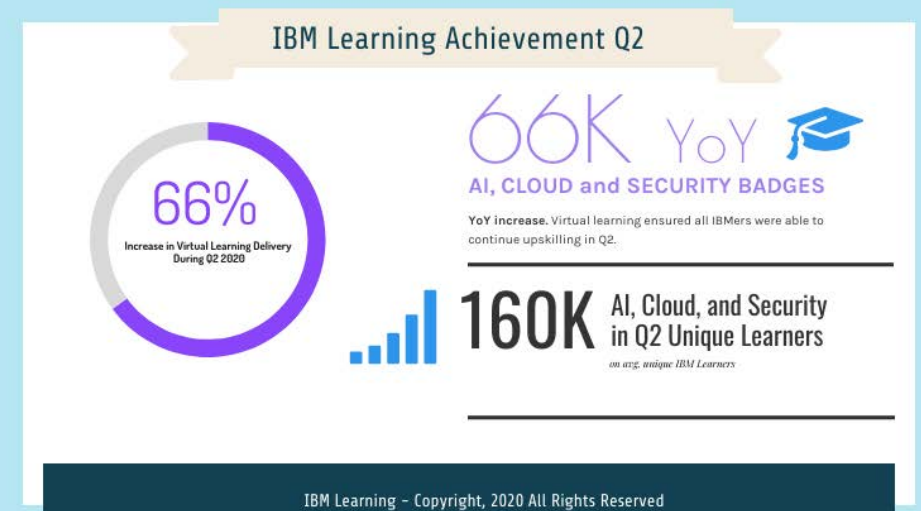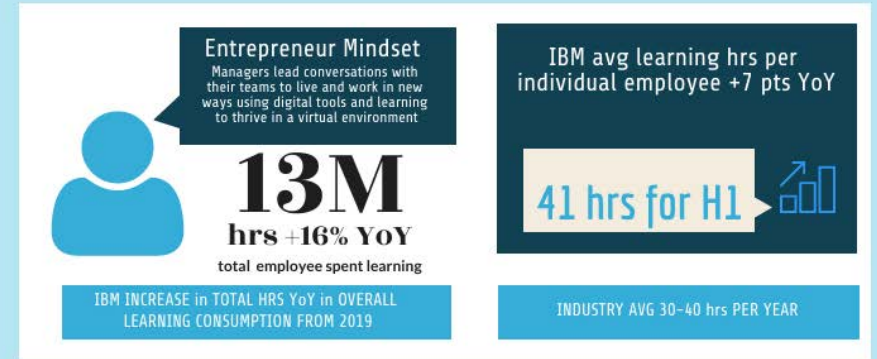
This more methodical approach, coined, "right-size" – affirms teams first choose whether virtual class and virtual events options deliver the outcomes of what the learner must be able to do to perform and think differently.

The choices we made were absolutely right. In H2 our half-year learning consumption is beyond what we imagined. IBMers consumed learning and remained committed to an entrepreneur mindset.

Managers were having conversations with employees on how to select the right fit for skill development and career goals. Learning hours overall was 13.2M (+16% YoY). The average number of learning hours for individual IBMers increased by 7 points when compared to 2019 at the H2 mark. It was remarkable to see the engagement and energy around learning as an organization.

IBM Learning
2020 Half-Year Learning Consumption

Entrepreneur Mindset
Managers lead conversations with their teams to live and work in new ways using digital tools and learning to thrive in a virtual environment

13M hrs +16% YoY
total employee spent learning

IBM INCREASE in TOTAL HRS YoY in OVERALL LEARNING CONSUMPTION FROM 2019

IBM avg learning hrs per individual employee +7 pts YoY

41 hrs for H1

INDUSTRY AVG 30-40 hrs PER YEAR

IBM Learning Achievement Q2

66%
Increase in Virtual Learning Delivery During Q2 2020

66K YoY
AI, CLOUD and SECURITY BADGES
YoY increase. Virtual learning ensured all IBMers were able to continue upskilling in Q2.

160K AI, Cloud, and Security in Q2 Unique Learners
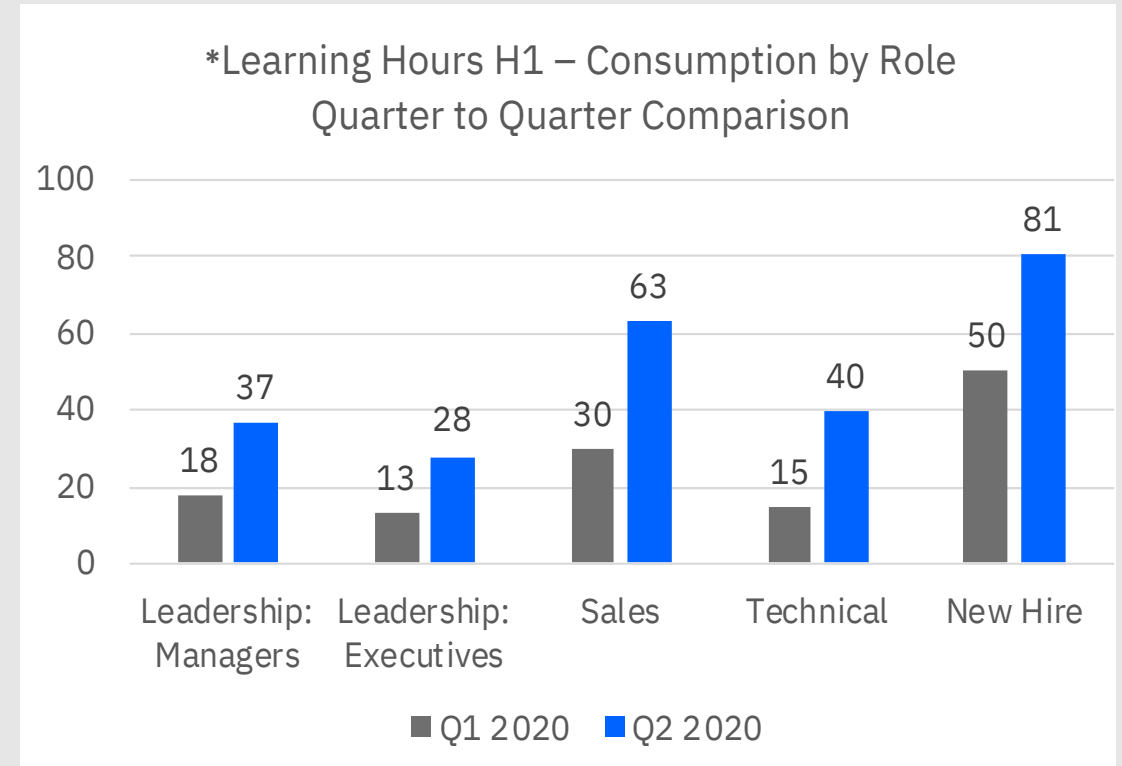on avg. unique IBM Learners

4. Executive perspectives

IBMers showed steady and continued commitment to learning during H1.

In H1, IBMers showed for these roles an increase in learning hours when comparing Q1 of 2020 to Q2 of 2020.

These learning hours represent enterprise offerings.

Of notable comment, the re-design of face-to-face learning to a virtual learning environment did not negatively impact learning time for leaders, sellers, technical employees and new hires.

*Learning Hours H1 – Consumption by Role Quarter to Quarter Comparison

Role	Q1 2020	Q2 2020
Leadership: Managers	18	37
Leadership: Executives	13	28
Sales	30	63
Technical	15	40
New Hire	50	81

■ Q1 2020   ■ Q2 2020

5. Re-designing based on learning outcomes

Right-sizing the delivery method based on outcome is the first step prior to re-design.

Re-design includes a spectrum of options in terms of virtual classroom techniques, incorporating resources, and integrating the right mix of assessment and testing.

IBM standardizes best practices on virtual design and delivery in a Live Virtual Classroom playbook. This should be a thriving and living best practice playbook available for key decision makers, and business owners as well as practitioners.

The digital tools available for experiential learning continuously change; and it is imperative teams remain current in digital options for the classroom in order to choose "fit for purpose" technologies and design rich experiences based on desired outcome.

The following list are a small sample of considerations when re-designing to a virtual learning environment.

- Flip-the-classroom – plan for blended learning in terms of pre- and post-work using guided activities, and online learning to supplement live instruction. Use the 1:4 ratio – 1 hour of live instruction typically best used with 4 hours of self-paced learning

- Prepare course overview and a field guide to explain and illustrate the learning journey and key learning outcome

- Ensure learners understand technical requirements and what is expected of them during social collaboration

- Facilitation techniques such as story telling, guided discussions, and ongoing learner feedback are key elements to success

- Plan flexible office hours for facilitators and subject matter experts to be available during questions, guided discovery and learning journeys

- Assessment activities are methods to diagnose, maintain levels of confidence, and often used to distribute graded assignments

5. Re-designing based on learning outcomes

Re-designing initiatives should always target what the learner is expected to do or think differently as a result of the learning experience. With this comes decisions around to what degree the learner is expected to perform a certain type of behavior.

There are learning outcomes certainly best suited for in-person instruction such as risk taking or a complete shift in attitude or way of thinking. Virtual learning requires care and thoughtful planning around multiple elements in a course to create a remarkable and lasting difference in a learner's ability to perform in a new way. Pre-work or baseline knowledge can be built using small and manageable sized learning over a set period or series of events.

We've listed here 7 common learning outcomes based on what most organizations offer as training programs. The intent is to inspire ideas on varied outcomes and link these to common design standards.

Learning outcomes

Varying degrees of learning outcome based on what is commonly taught in an organization

1. Leadership – empathy, communication, strategy
2. Onboarding – process, tools
3. Orientation – information
4. People skills – teaming, collaboration
5. Product training – features and benefits
6. Sales – technique, solution
7. Technical skills – solution, architecture, problem solving

Design standards (small sample of 3)

1. Help learners learn by using stories and ways for learners to take what they know and make meaning of new information
2. Use purposeful instruction to ensure the social context of learning by designing a cooperative learning environment
3. Ask deliberate questions and adventure in design to inspire and drive learner curiosity by starting with authentic problems

Skillful teaching (small sample of 3)

1. Play a 1-2 min podcast for auditory learners
2. Use a digital collaborative tool like Mural for visual and tactile learners to:
   • Draw meaning
   • Think collectively
   • Arrange ideas
   • Support intrinsic motivation
   • Map new ideas and concepts
3. Use application sharing to facilitate discussion

For example, using stories or incorporating social learning environments is a best practice and can easily be applied to meet varying outcomes. The question becomes in what way, for example, would common **design standards** play out to teach product training skills? In this case, product training outcomes are most likely to be the "how to" of a product. This outcome might be best served by simulating an authentic problem and using virtual groups to practice using the product in a cooperative cloud environment with Agile tools such as Trello or GitHub. The **skillful teaching** aspect for re-designing can be quite creative in virtual learning; using multi-media and digital tools to appeal to the visual or hands-on or tactile learner.

5. Re-designing based on learning outcomes

Learning outcome as it relates to sales and as a key business priority was at the helm of our re-design initiative. IBM proudly offers a premier IBM Global Sales School for New Sellers and therefore had an immediate need to right-size based on what sellers needed to know and the timeline by which sellers needed to complete their training. The following is a description of how we re-designed Global Sales School based on learning outcome.

It is a 12-18 week learning program which follows a hybrid model, combining self-paced online, live virtual classroom and face-to-face learning. At the outset of the global pandemic, 100% of IBM's workforce transitioned to a remote workforce which created an obvious impact to the learning experience – primarily impacting the face-to-face learning experience for sellers. This presented a challenge to the business in two ways:

1. onboarding sellers would be prohibited from joining the program without the face-to-face class; and

2. sellers who were 80% through the program and ready for graduation, could not complete their requirements without the final face-to-face class.

Solution

The core learning team responded with speed and agility; and re-designed the first and last modules from face-to-face to virtual learning classroom. Eight days of face-to-face instruction went through a right-size effort over a 4 week period. The IBM Sales and Industry Learning (SAIL) team was able to deliver live virtual learning with no disruption to our sellers, in terms of joining the program and graduating.

5. Re-designing based on learning outcomes

In terms of the re-design, the IBM Global Sales School stakeholder and practitioner teams were extremely nimble and pragmatic in terms of responding to business requirements in a timely and Agile way.

To help practitioner teams to act with speed, IBM uses a "Transition Design Stack" illustrated here, to redesign elements for a holistic learning experience.

Metrics of learning outcome can help gauge re-design impact, and for the IBM Global Sales School, the final NPS score remains high for the virtual class – the NPS is within 5 pts compared to the face-to-face class. The re-design sustained business intent in terms of seller onboarding and final certifications and created a meaningful and impactful learning experience for IBM Sellers

Traditional		Virtual
Learning Outcomes	⫸	Validate ... replace, renew or add instruction – learning outcome will need adjustment
Group Exercises	⫸	Use breakout rooms and regroup in main tent to discuss
Flip Chart	⫸	Use matching exercises and share application in virtual tool
Describing concepts	⫸	Use photographs or imagery and ask learners to use chat to pre-judge cognitive interpretation
Storytelling Lecture	⫸	Present separate listening or video talks to smaller students – use jigsaw discussions on lessons learned in digital collaboration tool
Ice Breaker Pop Quiz	⫸	Use poll feature to continuously ask questions of learners
Large Group Discussion	⫸	Use whiteboard or application sharing to learn about degree of census on a topic
Role Play	⫸	Use recording features and allow learners to playback and critique

5. Re-designing based on learning outcomes

Covid-19 created an abrupt change for corporate learning & development and for schools around the globe. Choosing what can be taught virtually is as critical, if not even more critical, than re-design.

At IBM we re-assessed our worldwide learning catalogue to determine what could be taught virtually based on learning outcome.

We found by asking 5 key questions, teams can have the right conversation across business stakeholders, practitioners, SMEs, and sponsors. Although this is not an exhaustive list – these questions ready teams to make a commitment.

Re-design across all learning outcomes should absolutely take in the 10% vs. 30%-50% rule. We expect learner activity at 10% in face to face; but in virtual we absolutely target 30% or greater of interactivity. Finally, the severity of learning outcome guides the choice virtual or face-to-face. For example, training for safety certification may mandate in person instruction.

Making the choice

1. **Learning outcomes** – what are you trying to achieve? Most but not all learning goals are a natural fit for virtual learning.

2. **Design** – do you have the right proportion of pre-work and learning material? Have you designed virtual learning with key motivators for learners to enrich their experience?

3. **The skillful teacher** – is your instructor and facilitator team experienced at teaching in a virtual learning environment? What is their confidence level; and is there training and coaches available to grow these skills?

4. **Instructor and learner relationship** – how available can the instructor be? Are you willing to have office hours and can you provide technical support for students who will need assistance?

5. **Digital environment** – can your company support a digital environment where pre-work, and multi-sensory learning styles can benefit from an engaging learning experience?

Making the choice for virtual learning involves too; rallying around commitment to continuously motivate learners to stay engaged.

IBM uses these 4 top motivators:
- Create curiosity
- Share passion, beliefs, and principles
- Use stories to draw learners into teaching
- Design for a multi-sensory environment

6. Reimagining Virtual Learning Excellence

To design & deliver virtual learning, there are 3 buckets to follow on best practices. They are: 1) neuroscience principles, 2) digital transformative tools, and 3) methods to ensure intent to create play, purpose and testing.

Let's begin with neuroscience. There are a myriad of neuroscience practices and IBM uses many of them. The AGES model (introduced by Lila Davachi, Tobias Kiefer, David Rock and Lisa Rock in 2010 and redefined by researchers at Columbia NYU and the Neuro Leadership Institute) has stood the test of time and is extremely well suited for virtual learning best practices.

First and foremost, the AGES model (attention, generation, emotion, and spacing) helps learning retention and recall – which is critical in a virtual environment. Secondly, assimilation and accommodation are techniques essential to activate and engage learners.

Assimilation (using stories to conjure up memories from the brain) is used to introduce new concepts

Accommodation (using practice and feedback) is used to process and store new concepts in the brain.

Design Principle	Best Practice
Cognitive Load	• Keep learning duration to 45 minutes – sessions (no matter how engaging) should never be longer than 90 to 120 minutes • Provide breaks to allow learners (minimum of 20-30 minutes) to realistically respond to work demands (ie., Slack messages, etc.)
Learning Transfer	• Depending on the learning objective (describe, exhibit, or apply) – choose activities to engage learners every 4-7 minutes
Memory "stickiness"	• Coherence – how the brain connects info • AGES – how to learn new information • Social learning using chat and backchannels • Virtual context impacts learning

6. Reimagining Virtual Learning Excellence

In reimaging one of IBM's management development course, for first line managers – we used the AGES model to infuse neuroscience principles into a redesign for virtual learning.

In the AGES model for the "A" (attention), we used a Placemat and "Fit for You Card." These were informational and provided a variety of formats for managers in the virtual class to use as tools – whether they were hot links to additional information or tools to structure conversations.

In the AGES model, for the "G" (generate insights) – we used the digital tool Mural to facilitate ownership of content and helping managers in the virtual class to connect new concepts to their own context. Virtual round tables encouraged group learning and social interaction which is a powerful way to collect group context for generating insights.
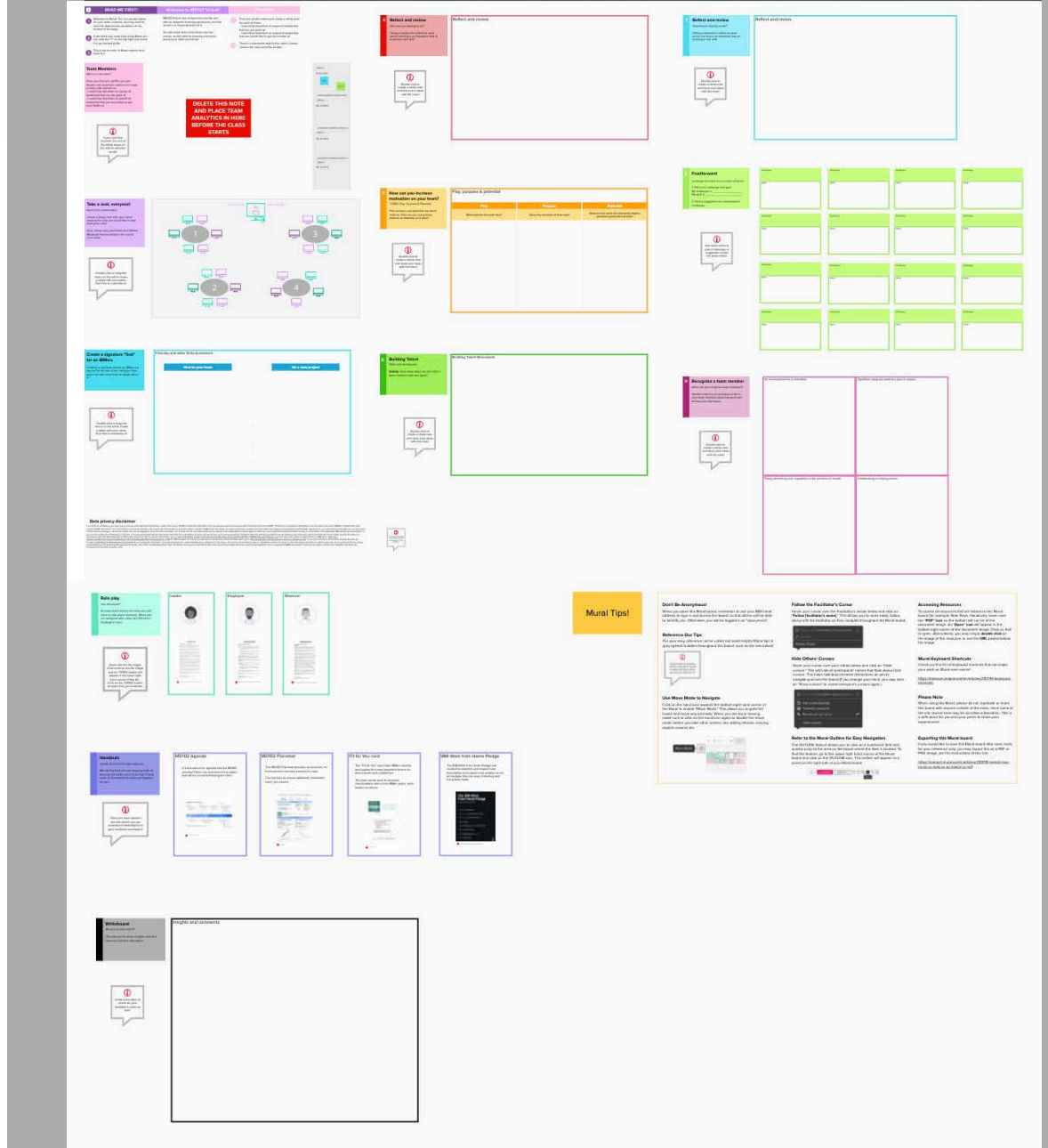
6. Reimagining Virtual Learning Excellence

The second bucket we use to categorize ways in which to design and deliver virtual learning is digital transformation tools.

New ways of working and living following the global pandemic would be unthinkable without digital tools.

IBM has led the way with digital transformation over the last 5 years; we have totally reimagined HR transformation with AI – and with digital tools.

In this unprecedented time of disruption and chaos – digital tools served the bridge which allowed us to unleash amazing virtual work and learning experiences. These tools connected us as teams, they connected us with our clients, and they connected us to understand and learn from each other in ways which never were imagined.

Virtual learning was totally reimagined with the Mural tool – and replaced physical walls of a classroom with digital sticky notes and post-its for shared thinking across cohorts.

Virtual learning was reinforced through rich conversation on Slack – this digital tool offered boundless access to SMEs, sponsors, and leadership teams who were readily available to spark curiosity and encourage motivation.

6. Reimagining Virtual Learning Excellence

IBM uses digital tools to collaborate across the enterprise as a way to engage employees to solicit input, and reimagine our way of working in a virtual environment. In late Spring of 2020, IBM held a global "Think Forward Jam 2020" session. Although this Jam session is not a classic learning event, it is absolutely representative of change – and tied to what it means to artfully facilitate a virtual experience.

Over a 3-day period, 34K IBMers from around the world came together to reinvent ourselves. We actively came together to think through our new ways of living and working as a result of Covid-19 – and asked IBMers to redefine 4 areas:

1. Redefine how we engage with our clients

2. Redefine how we deliver our services

3. Redefine how we innovate; and

4. Redefine how we lead and work

IBM believes in the power of collective wisdom, an entrepreneurial mindset and transparency; and what resulted from this Jam is like no other. Together, we banded as a unified company to redefine new pathways to act as trusted partners to our clients, think big, adopt a "virtual first" mindset, and ultimately create a hybrid workspace.

As a result, IBM launched multiple programs as a commitment from leadership on best practices to increase usage of collaboration tools and client engagement excellence.

For purposes of this discussion, there are 2 key take-aways: 1) digital transformation tools used to drive conversation and spark new ways of collaborating; and 2) the art of facilitation: that is; the human element by which a Jam session is facilitated using a question and answer technique.

innovation*jam™

6. Reimagining Virtual Learning Excellence

Being IBM, we own the IBM Jam technology which quite frankly, can bring together over a million people to engage over a set number of days. And IBM knows how to engage the wisdom and passion of crowds.

Beyond the technology and beyond the platform is the thought leadership which goes into the design of a virtual Jam session and the art of facilitation to connect the threads of emotion, discussion, and inspiration.

The design of the virtual session seeks to drive the human intervention with a purpose and set of actionable outcomes. Sessions are categorized by topic, and topics are led by group leaders.

The art of facilitation for a virtual session will often use a questioning technique. Group leaders use engaging, sticky, and provocative questions - and you will find that group leaders don't provide answers but instead – allow the brain power and democracy of IBMers to emerge.

Some would argue any technology can be used - and such a technology decision would be based on scale. For example, the IBM Jam platform uses the power of IBM Watson AI to analyze emotion and natural language and can service anywhere from 1K to 1M users. Other technology platforms such as Yammer can service a smaller crowd, 200 to 1K. No matter the decision around technology, no one could ever argue the absolute necessity of solid design, and the art of sticky engagement and facilitation.

In summary, much of the success of a virtual Jam session, is hugely similar to what we have been discussing thus far. It is the power of design, the skillful teacher and facilitator, and the human connectedness of participants, and commitment to action and change which all come together to fully realize the value and possibilities of learning in a virtual world.

6. Reimagining Virtual Learning Excellence

The third and last bucket we use to categorize ways in which to design and deliver virtual learning is the "stickiness" factor. There are 7 ways in which practitioners can absolutely ensure learners are engaged in a virtual learning environment. Remember the 10% rule – learners in a physical classroom are engaged 10% - in a virtual learning environment they need to be engaged 30-50%.

Motivation and engagement is not defined by using tools – but rather it is defined as social collaboration among learners who immerse themselves and connect with the content emotionally and intellectually.

01 Breakout sessions

Offer a rich environment to practice in small groups with software code, role play, or virtual simulations. Breakout sessions also provide an opportunity to create smaller cohorts and competitive gaming exercises.

02 Chat

Research shows a "back channel" provides dialogue, social interaction, and opportunity for exposure to experts. AI is breaking ground in this area in terms of analyzing text for sentiment, preferred topic, and general audience interest and understanding of instruction.

03 Whiteboards

Perhaps the most powerful method to transfer visualization participants input, emphasize key points, and write out instructions.

A whiteboard can be used for a KWL exercise (know, what I want to know, and what I learned) – key to ensuring learning transfer takes place.

04 Tests

Pre-tests give learners feedback on their level of comprehension, and post-tests give learners remediation on what they learned. Testing is an important element in the overall design of virtual learning and can provide insight for key stakeholders and metrics.

05 Test-out

IBM uses a test-out design pattern to generate a customized learning path based on results of a test. For example learners are presented with a test and for each test question answered correctly they are "waived" from having to complete that module or topic. This streamlines and creates prevailing efficiencies in the learning journey.

06 Social hours

Virtual cohorts should establish a social contract which embraces virtual breakfast or evening hours to relate learning and develop relationships which can than be leveraged beyond the class.

6. Reimagining Virtual Learning Excellence

The way in which we use virtual environments to work in can simply be integrated in the design of virtual learning for play, purpose, and intent on outcome. For example, virtual "social hours" can be added outside normal classroom hours to deepen relationships. Another example is brainstorming tools, like Mural, which can ensure play and purpose by fostering creative thinking across teams. The idea is to design virtual purpose and intent by connecting emotional (ie., social hours) to learning.

07
Mural

Visual and tactile learners learn by touching, doing, and graphical representation of information. These two types understand and remember best by their physical environment.

Mural is a powerful digital tool which simulates play, creativity, and collaboration using kinesthetic and multi-sensory techniques.

08
Slack

Slack is one option as a method to poll learners easily and foster curiosity by asking learners to solve open-ended questions (ie., a solution to a problem) and encourage curiosity.

Slack enables cohorts to share their experiences and communicate – it can spark a conversation or help reinforce a teaching point.

And in all cases, it fosters class organization and file sharing.

The power of networks is often forgotten in virtual learning. During Covid-19; IBM encouraged virtual coffee breaks and virtual "after hours" connections. The virtual class can take lessons learned from this and use this principle in the design and facilitation of virtual learning.

7. Applying the 4 E's to Virtual Platforms

Virtual platforms are accelerating the pace for collaboration; and can cover a broad spectrum of technologies.

Live vs. recorded sessions with experts impact the level of experiential collaboration and learning.

Platforms such as these, are often used in combination with each other or with other delivery methods to create a hybrid learning solution.

This list is not inclusive of all virtual delivery platforms which are in the marketplace today.

Often times **business application can be selected** by considering the **four E's**: enablement, education, exposure to experts and experience as outcome.

IBM Platform	Description	Enablement	Education	Exposure to Experts	Experience
IBM Watson Media	An enterprise content delivery network, which allows video streaming, video analytics, and IBM Watson captioning. The benefit to IBM Watson Media is the use of AI in content as well as leveraging the "back channel" discussion from participants.	✓	✓	✓	✓
IBM Innovation Jam	Often, tied to larger virtual events – categorical moderated and online discussion for change leadership	✓		✓	
IBM AI Project Debater	A new and experimental cloud-based AI platform for crowd-sourcing decision support. Platform can be used for cognitive discovery, such as assimilation of new concepts by forming a persuasive argument.	✓	✓	✓	
PGI Global Meet	An enterprise-grade video conference platform. This service provides conference assistants to aid in project management and delivery.	✓	✓	✓	✓
On24	On24 is a video conference event platform. This vendor is a bit flexible in its offering ranging from Webinars to full-scale enterprise events. They can offer a customized landing page; and also provide content management for an event.	✓	✓	✓	✓
Event Brite	Eventbrite uses a popular, "ticket" like approach to building "free" events and offering them via a ticket-exchange experience. It is essentially a website event management service which allows SMEs create and promote local events.	✓		✓	
Webex Training	Uses graded assignments, testing, and breakout sessions for teaching in a live virtual classroom. Can accommodate up to 1,000 participants.		✓	✓	✓

8. Leveraging a Modality Selection Guidance

IBM chooses a learning modality (delivery method) based on business goals – teams of experienced practitioners and subject matter experts have a conversation with business stakeholders to review learning outcome and target measures.

Given the number of different modality options, and wide range of measurable impact, options and rationale can help facilitate a conversation over virtual learning choices.

The modality selection guide and modality measurement guide illustrates at a high-level options for learning investment, and strategy.

This guide is not intended as a one size fits all, and neither should it imply one modality can stand on its own. There are often times virtual collaboration is quite powerful when combined with in person teaching, mentoring, and coaching.

Instructional model	Virtual Class	Virtual Event	Web Lecture | Town Hall	Face-to-Face Class	IBM Jam	Online Course	IBM AI Project Debater	IBM Garage Services
Certification	✓	✓	✓	✓		✓		
Social Collaboration	✓	✓		✓	✓			
Networking		✓		✓				
Co-creation	✓			✓	✓			✓
Experiential learning (or behavioral)	✓			✓				✓
Enablement (or information processing)	✓	✓	✓			✓	✓	

Instructional models in this table are used in the field of education as a philosophical orientation to instruction. These models are intentionally at the broadest level and with them, bring a modest amount of sometimes lively debate on learning outcome.

Models are intended to help guide, select and to structure methods of instruction, the building of skills, and to guide the selection of activities for emphasis during instruction.

The modalities in this table are presented based on degree (highest degree) of ability to deliver the strategy necessary for this method.

This modality selection guide is intended to be a conversation piece for teams to guide reimagining what virtual learning could be for your organization.

8. Modality Selection Guidance

Modality Measurement Guide

	01	02	03	04	05
Measured by	• NPS • Sentiment analysis • Back chatter • Social collaboration • Text analytics	• Confidence • Badge | Certification • Behavior Change • Attitude Change	• Career growth • Expertise level shift	• Business change	• Financial return on co-creation and change management
Modality	• AI Project Debater • IBM Jam • Online Course • Virtual Event • Virtual Class • Web lecture | Town hall	• Online Course • Virtual Event • Virtual Class • Web lecture | Town hall	• Face-to-face course • Online Course • Virtual Class	• Face-to-face course • Garage Services	• Face-to-face course • Garage Services

8. Modality Selection Guidance SIDE BAR

A **modality is defined as a method to deliver training**. This is not an inclusive list, nor does it include instructional strategies (ie., testing, case study methods, etc.).

Face-to-face class

Learning delivered via instructor and/or subject-matter-expert in person

IBM AI Project Debater

A new and experimental cloud-based AI platform for crowd-sourcing decision support

IBM Garage Services

Apprentice opportunity in-person or virtual to collaborate

IBM Jam

A categorized and moderated discussion virtual

Online Course

Course which has testing, learning objectives, and content and delivered online – can include lab sessions

Virtual Class

Delivered with live instructor via Web – can include lab sessions

Virtual Event

Attended by large audience virtually hosted by industry experts – can include "hackathon" hands on experiences

Web lecture or Town hall

Recorded message or live virtual session using conference tool like Zoom or Webex
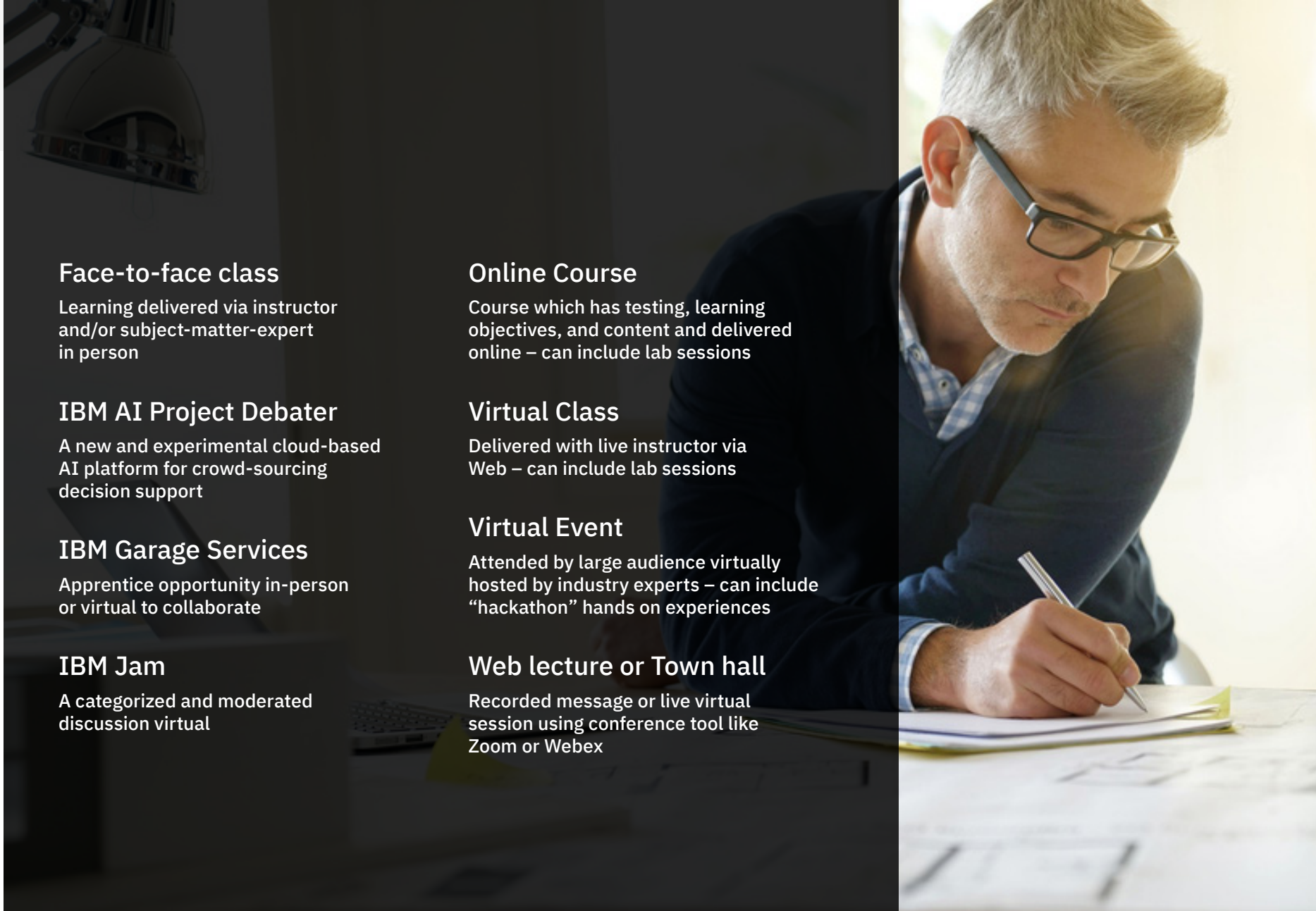
9. Word Worthy

Breakout Session(s) can and typically be part of either virtual conferences and classroom events. These are intended to be mini-workshop experiences (like hands-on lab or role play) for smaller groups and best used for experiential learning.

Jam Session(s) are categorical and powerful threaded "real time" conversations which assist an enterprise to evolve and better understand cultural or other ideas around business. They are time-boxed and typically occur over a 1-3 business day timeframe. Results are recorded, analyzed, and then communicated to both stakeholders and participants with a plan of action.

Live vs. recorded sessions can be designed using a live interaction with the audience or pre-recorded. Often referred to as synchronous vs. asynchronous delivery. Collaboration is a key factor in choosing among the two.

Online Seminars are organized into groups of people who teach a specific skill. Expert speakers are typically invited to speak on special topics of interest. They are short in duration.

Online Summits is targeted for groups of individuals who come together and tackle business challenges with the intent to adjourn with a solution approved by all participants.

Virtual Classroom is a teaching and learning environment where learners interact, use assimilation and accommodation to process information, and apply instruction adopt or change patterns of thinking and behaving. Virtual classrooms toggle the art of facilitation to bridge the distance between learners and the science of instructional strategies. Design is applied to measure business impact.

Virtual Events hosts keynote speakers, presentations on advancements in a field of study or trends in industries. Usually intended for a large group of people who can engage with social tools and who follow a planned agenda. Can deliver live vs. recorded sessions.

Workshops and seminars are terms used interchangeably; yet both are educationally focused. Workshops tend to provide more hands-on and group activities vs. seminars tend to deliver targeted and guided interactivity. Both workshops and seminars sometimes offer options for continued participation post-event (ie., networking, reflection, and assignments as an example).

10. Summary

1. Virtual learning and virtual events are each unique in their offering (key attributes that set thee apart are related to outcome, number of attendees and the use of tests / graded assignments). They are not exclusive of one another; and can be used together as a hybrid offering.

2. Re-designing is based on learning outcome. Questions should be asked concerning right sizing for virtual and teams need to make decisions whether to pause a face-to-face offering (or sunset) based on the type of outcome the organization is driving to.

3. Re-designing for virtual learning is a responsibility to ensure the social context of learning, driving motivation, and building upon neuroscience and cognitive stickiness elements.

4. The artful and skillful instructor is key to facilitation. Teaching techniques such as lecturing creatively with stories, facilitating discussions, overcoming resistance to learning, and building trust with learners in a virtual environment is paramount to a lasting and memorable learning experience.

5. Ensure the virtual classroom is rich in providing visual, tacticle and auditory means learner.

6. The virtual platform marketplace is expanding and the 4 E's (education, enablement, exposure, and experience) can aid in decision criteria to select the right platform based on key business objectives.

7. Broad instructional models can be leveraged to help guide the selection and / or combination of modalities.

10. Summary

A few deeper insights to the overall summary include:

- Investing in **digital collaboration tools** such as Mural and reimagine learning for those who are strong visual or tactile learners

- Virtual learning should **never forego social networking** – creating social hours during breakfast or evening deepens cohort relationships

- **Play and purpose to every day work** is critical to our success in terms of how we engage as employees and advance in our careers – it should also be a critical part of our learning experience. Play and purpose should be a common thread throughout our continuous learning journey

- Teams have to be willing to commit to **drive curiosity and motivation** in a virtual learning environment

As we summarized our point of view, we realized in the spirit of Agile – no point of view would be complete without the closed loop feedback of our learners. We interviewed learners on what it felt like, for them, to have gone through virtual learning.

We wanted deeper insights on:

1. What was it like to be "present"

2. How inspired and motivated were you to participate

3. To what degree were you confident in your new skill

4. Did you feel like you connected socially

The following is what we learned.

"Being Present"

All participants unanimously reported that video – being "on" made them accountable. They also reported breakouts and working in small groups helped make them feel more present.

"Inspiration and Motivation"

It was the peer-to-peer discussion in terms of sharing experiences which kept learners inspired and motivated to participate.

"Confidence"

It was the content and frameworks which reinforced confidence to perform a new skill.

"Social collaboration"

Ranked lowest by participants, there was kinship amongst peers during learning; yet few reported enduring friendships post-learning. Interactive assignments seemed to strengthen the collaboration; particularly in small breakouts.

The key take aways from what we heard from our participants reinforce much of the thread used throughout the fabric of this paper...

1. Design for breakouts; and instructional activities for "stickiness" listed in Chapter 9

2. Use social hours to help facilitate social collaboration as indicated in Chapter 9

3. When presence is a part of the Common 7 outcome, reference Chapter 5 and Chapter 10 to help identify instructional and modalities to help participants to feel present

Resources

1. How Neuroscience can Help Optimize Virtual Learning Experiences, Presented by Kamila Sip and Steve Wourgiotis, Neuroleadership Institute, 2020.

2. Virtual Classroom Tool Design Basics: A virtual engagement primer. InSync Training, Jennifer Hoffman, 2020.

3. The Skillful Teacher: On technique, trust, and responsiveness in the classroom by Stephen Brookfield, Jossey-Bass Publications.

4. The Neuroscience of Learning and Development: Enhancing creativity, compassion, and critical thinking by Marilee Ludvik, Stylus Publishing.