FACILITATING ONLINE BUSINESS SIMULATION DEBRIEF TO PROMOTE AND IMPROVE LEARNING AND PROFESSIONAL PRACTICE

by Neharika Vohra, Indian Institute of Management | Rajshri Jobanputra, FocusU Engage India

neharika@iima.ac.in
rajshri@focusu.com
Full Paper
Experiential Track

"All genuine education comes about through experience."
John Dewey, Experience and Education, 1938.

INTRODUCTION:

The concept and practice of experiential learning or learning by doing has come a long way since Dewey's widely acknowledged and celebrated work Experience and Education (1938). The earliest 1955 business games, Monopologs, developed by Rand Corporation[1], followed by a host of design of experiences such as kinaesthetic mass team building experience like rafting or drum circle[2], to cognitive and cerebral board games, to the current generation of online business simulations. The need to focus on online learning because of the pandemic and the availability of technology has moved the conversation from impactful learning and learner engagement through experiential learning to the design of learning experiences using technology. With technology, internet, smartphone access becoming easy, experiential learning using online business simulations today are changing the landscape of learning especially within the L & D and management education sector.

This paper focuses on improving learning outcomes from Online Business Simulations (OBS going forward) that typically focus on behavioural aspects of successful professional practice. These include simulations for the development of skills such as influencing, leadership, negotiation, stakeholder management, etc. In most of these simulations, learners engage (either individually or as part of a group) with a virtual real-life scenario in which learners take decisions to meet a particular or set of objectives following certain rules governed by certain conditions inbuilt within the simulation. There are four basic reasons why tech-enabled experiential learning simulations have become popular. Firstly, it is seen as a creative and innovative way to increase student's interest in learning (Mawhirter and Garofalo, 2016); secondly, OBS provides learners with an immersive and risk-free environment to make situation specific decisions thereby enabling them to make the association between their theoretical and practical knowledge (Bell & Loon, 2015). Thus, as Shaffer (2004) claims, modelling learning environments on authentic professional practices (i.e., the practices of running a business) enables learners to develop deeper understanding of their domain and prepare them to better cope with business realities and complexity. Thirdly, the new-age OBS also helps track learner progress and offer targeted feedback on skills the learner can choose to improve on and receive specific training resources. Fourthly, the current generation of OBS are device agnostic and make learning possible anytime anywhere – which is most conducive for adult learners / working professionals on the go.

Unsurprisingly, OBS as an experiential learning tool has brought in an important revolution in the L & D and education sectors with innumerable benefits for both the learners/employee as well as the educators/employers. In comparison with textbook-based learning, OBS not only allows adult learners undertake complex tasks while being deeply immersed in the experiences but also enables educators and organizations alike to enable impactful learning at scale while ensuring faster comprehension of fundamental concepts.

The Facilitator's Role:

A well-designed, high-fidelity business simulation creates opportunities for multiple and myriad types of layered interactions within the tool (between the user and the different characters, actions, and event) as well as outside it (group and peer interactions). However, it is the performance feedback report (based on the actions taken in the simulation) highlighting the likely consequences of the actions taken in real-world and recommendations for how to improve future practice is what helps bridge the crucial gap between a learner's theoretical understanding of concepts and its practical application. But is this to say that the benefits associated with the tool are solely possible from merely the expereince of engaging with the tool? In other words, the question is: does the experience in itself warrants for the insights gathered and the ensuing impact on furture

---

[1] Faria, A. J. (1987). A survey of the use of business games in academia and business. Simulation & Games, 18, 207-224
[2] *https://www.youtube.com/watch?v=CXqibYSKsWw&t=128s*

partice of one's profession thereof? It is our contention, as those engaged in delivering learning through multiple pedagogies, that while stellar learning expereince designers and simulation developers can make this possible, deep insights for the learner from an intense expereince is largely a function of a well facilitated debrief led by experienced facilitators. By debrief we mean the discussion/analysis of 'what happened, and why' after the learner has sincerely completed playing/experiencing the OBS. It is only when experiences are shared, and the learners talk about what happened in those experiences that learners effectively process their experience (Fanning & Gaba 2007). Jasper, Rosser, and Mooney (2013) have argued that of the three phases of simulations, briefing-playing-debriefing, the assimilation of new knowledge with current behaviour and future practice is most decided by the quality of debriefing.

Based on our collective experience of facilitating numerous OBS based workshops (both in-class as well as virtual) we argue that simply setting aside time to individually reflect on the experience with a few prompts given by the designers of the OBS as guides for reflection are not sufficient. The insights, the connects, and the takeaways are not self-emerging by the mere use of the tool no matter how well designed the feedback report. The emergence of insights and learning is more likely when an experienced facilitator effectively leads the conversation in the group about 'what went on' through the experience. It is when learners and the facilitator talk about the experience, reflect on important inflection points observed by the facilitators that enables the learner to connect the dots between specific actions taken within the simulation setup and its impact (positive or negative) in practice. So while on the one side there is the tool and the learner on other side the connect between the learner 'having/undergoing the experience' and 'learning from that experience' lies in the role of the faciltator and how he/she/they debrief that entire experience for the learner. The questions that the facilitator asks become the mainstay of the debrief.

Against this backdrop, this deliberation is aimed at double-clicking on this interplay between the role of the facilitator debriefing the experience and the deliberate and effective use of questions within that context to optimize learning and help learners 'transform' their experience into meaningful/ useful insights that would impact their future professional practice.

The Facilitator's Toolbox:

From among the myriad tools that a facilitator may have at his/her/ their disposal, to effectively hold and sustain the debriefing momentum we propose the use of questions, a tool that lends itself to be most effective to help learners extract the maximum meaningful takeaways from their experience. Likening the debrief to the process of panning for gold, where the gold is the learning, the facilitator the miner, and the water used in the panning process to extract the gold being the questions, the way the miner moves and manoeuvres the pan to separate the debris and sediments from the gold, is exactly what a facilitator needs to do with the questions to help learners leave with, if not a bucket but a bottle full of gold.

The proposal that effectively using questions for facilitating debrief may not come in as a unique proposition. We propose a structure to how questions can be used to debrief effectively. Based on our cumulative over 500 hours of OBS debriefing facilitation experience, we propose that leading and facilitating an OBS debrief is best done when the facilitator incrementally takes the learners through the 4 stages of debrief while using the right set of questions at each of those stages from the 4 quadrants of Chuck Weiderhold's Q Matrix (Weiderhold, C., 1995).

	Event	Situation	Choice	Person	Reasons	Means
Present	What is?	Where/ When is?	Which is?	Who is?	Why is?	How is?
Past	What did?	Where/ When did?	Which did?	Who did?	Why did?	How did?
Possibility	What can?	Where/ When can?	Which can?	Who can?	Why can?	How can?
Probability	What would?	Where/ When would?	Which would?	Who would?	Why would?	How would?
Prediction	What will?	Where/ When will?	Which will?	Who will?	Why will?	How will?
Imagination	What might?	Where/ when might?	Which might?	Who might?	Why might?	How might?

Resorting to a quarter of a century old model to effectively facilitate modern day online-business simulation may surprise some. However, as facilitators, we believe in aligning the debrief process with a well-designed structured tool that optimizes the transfer of learning. Weiderhold's Q Matrix for us is that tool – one that not only prompts deep reflection on the choices made during the OBS play but, when employed effectively, elevates the quality of insights and perspectives shared. This, in turn, results in valuable takeaways for the learner.

When facilitating debriefs for OBS experiences, our fundamental goal has consistently been to foster numerous 'ah-ha moments' for learners within the limited time window of approximately 45-50 minutes. However, in contrast to our structured approach using Weiderhold's Q Matrix in OBS debriefings, we have observed more informal, loosely structured use of questions while facilitating the OBS debriefing session among fellow facilitators. Drawing from our extensive observations of fellow facilitators and their style of questioning during similar OBS debriefing sessions, we have identified three notable impacts:

a) *Compromised Learner Experience:* Employing a loosely structured set of questions not only led to variations in the depth and breadth of discussions but also introduced inconsistencies in the pace and focus of the learning sessions. This fluctuation hindered the seamless assimilation of insights from the debriefing discussions thereby diluting the overall learning experience for learners.

b) *Inadequate coverage of key topics:* The absence of a structured questioning approach led to missed opportunities for achieving specific learning outcomes, consequently impacting the key takeaways from the OBS experience. This was evident as the flexibility in questioning sometimes resulted in irrelevant discussions, occasionally overlooking essential topics, and missing key points.

c) *Learner participation challenge:* The absence of a clear structured questioning framework allowed certain learners to dominate discussions, hindering the overall effectiveness of the debriefing process. This inequality in participation contributed to confusion for some learners as they struggled to discern the purpose or direction of the debriefing.

While deploying a loosely structured array of questions had downsides, it also offered distinct advantages. For instance, the flexibility allowed the facilitator to address certain cohort-specific needs like deep diving into a particular issue at work experienced by a member of a cohort. This dynamic approach enabled creative discussions tailored to participants' interests, contributing to an engaging learning experience. Another advantage of using an unstructured flow of questions was that it fostered a supportive learning environment. It allowed the facilitator to adjust their questions based on real-time observations, making the learning experience immediate and impactful.

However, these advantages are only seen when the facilitator has years of experience, and the group of learners is mature. Thus, over the years of experimenting with, and observing of multiple OBS-related debriefing practices of different facilitators, we believe that balancing flexibility and structure is crucial. This led us to adopt Weiderhold's Q Matrix in our OBS debriefing sessions, providing a robust base framework as it served three key functions relevant to our context:

a) *Balanced Structure:* Weiderhold's Q Matrix offers a well-structured set of questions, guiding participants from basic recall to higher-order thinking within our limited 45–50-minute timeframe. This incremental approach prevents skewed responses and ensures a comprehensive exploration of the learners' experience

b) *Flexibility of DIY Questions:* The model allows facilitators to dynamically customize questions. With inherent clarity and precision, akin to a DIY kit, facilitators can effortlessly incorporate relevant details of the OBS being facilitated. This ensures learners respond to contextually relevant questions, fostering accurate and focused responses enabling the facilitator to effectively build on further conversation.

c) *Relevance to Objectives & Simulation Elements:* Whether debriefing our in-house OBS or a partner's, Weiderhold's 12 collective themes (See Table 1) align with common elements across all OBSs we facilitate. Weiderhold's Q Matrix not only offers a logical flow of questions aligned with session objectives but also seamlessly integrates with key aspects of the OBS (situation, events, means, choice, possibility, etc.), creating a coherent and effective debriefing experience for the learners.

A Comparative Study Based on Experience:

As an illustration we present the typical questions employed by other facilitators within a similar 45–50-minute timeframe.

Soon after the learners have completed the simulation and downloaded the feedback report:

- *So how was it?*
- *Ok give me one feeling word related to what you experienced*
- *What did you like the most about this simulation?*
- *What could you have done differently?*

Post these they dive into briefly explaining the feedback report and ask:

- *What surprises you most about your feedback or feedback scores?*
- *Could you have avoided or timed any of the action differently in the simulation? Why?*
- *Do you believe action XYZ would be effective in your workplace or team? Why?*
- *If this were a real-life scenario, what consequences might your actions have had?*
- *Can you identify instances in the simulation where the earlier discussed framework was evident?*

And then just before closing on the debrief session:

- *What are your top two key takeaways from today's experience?*
- *From those, what is the one thing you commit to applying back at work?*

In comparison, here is how we have typically utilized our 45-50 mins of prime time to debrief using the Q Matrix:

- Initial 2-3 mins: After participants complete the simulation and receive feedback reports, we take a moment for the initial excitement to settle. Amidst the chatter, energy, and reflective thinking, we transition into our four-stage debriefing facilitation.

a) The Invitation stage: Questions to make space for learning

In this stage, the facilitator assists learners in gradually unpacking the myriad experiences, including potentially conflicting real-life encounters, they may have witnessed in the simulated scenario. Without this effort, assimilating new learnings or building on existing beliefs/practices can become challenging. The questions in this stage primarily serve the purpose of allowing learners to reflect on their experiences, thoughts, and feelings about the last 1−2 hours of the simulated experience.

Given our limited time, it is crucial to swiftly delve into the conversation to ensure impactful learning and enable the transfer of knowledge. Here are some questions we pose using the first RED quadrant of Weiderhold's Q Matrix.

	Event	Situation	Choice
Present	What is?	Where/ When is?	Which is?
Past	What did?	Where/ When did?	Which did?
Possibility	What can?	Where/ When can?	Which can?

i. What is it that you are experiencing right now?
ii. Which part / aspect of the simulation was most challenging for you?
iii. Which character in the simulation could you relate to the most?
iv. When did you have a breakthrough moment in the simulation?
v. What conclusion can you draw about XYZ based on your experience in this simulation?

As you can see, we are currently posing broad, generic questions regarding both the simulation and the overall learner experience. There is no specific focus on the choices made and their reasons at this point. A crucial consideration in this stage

is to avoid delving into discussions about the tool's features or potential improvements. Even if that issue or input from the learners' surface, steering the conversation back to the experience of dealing with the simulated situation is essential.

b) The Reflection Stage: Question to help surface the learning

During this stage, the facilitator focuses on surfacing underlying concepts, insights, or understanding to ensure learners identify and comprehend key elements within the OBS experience. Utilizing questions from the YELLOW quadrant of the Q Matrix, the facilitator creates an environment for learners to uncover, articulate, and grasp essential aspects, enhancing the visibility and accessibility of learning. This aids in the recognition and internalization of critical knowledge or skills conveyed through the OBS. Here is how we leverage Weiderhold's 2nd Quadrant to facilitate this stage.

	Person	Reasons	Means
Present	Who is?	Why is?	How is?
Past	Who did?	Why did?	How did?
Possibility	Who can?	Why can?	How can?

i) Who in this group did / did not take the XYZ action? Why?
ii) How did your scores change when you choose to do PQR action instead of XYZ? Why did that happen you think?
iii) Why can taking the ABC action early on be more effective / ineffective in comparison to PQR?
iv) Group 1/member1, you seemed to be doing awesome/struggling mid-way. How did you manage to sustain the momentum/overcome the challenge to meet the objective?
v) How can the diverse decision-making perspectives and actions opted by this group assist you at work?

As evident in this case, much of our discussion revolves around the actions taken during the play. Exploring the reasons behind these actions (whether taken or not taken) sheds light on the biases, beliefs, experiences, and theories guiding them. At this stage, it is crucial to prevent one person or group from dominating the answers. Additionally, if say the learning session is organized around five major themes, ensure their emergence through effective 'why' questions. These questions play a vital role in validating theoretical concepts underlying actions taken in the simulation.

c) The Crystallization Stage: Questions to help connect the dots ---

In this debrief stage, the facilitator utilizes the GREEN quadrant questions to help participants connect the relevant aspects of the information and frameworks explored during the session to their workplace context. Through guided discussions, the facilitator helps individuals link new knowledge with existing understanding, identify patterns, and grasp the relevance of different components and integrating this new learning into a broader context of their workplace. This phase emphasizes the practical relevance of the immersive experience for a holistic understanding, preparing learners for real-world applications. Here are the questions that the facilitator uses to deliver on this.

	Event	Situation	Choice
Probability	What would?	Where/ When would?	Which would?
Prediction	What will?	Where/ When will?	Which will?
Imagination	What might?	Where/ when might?	Which might?

i) What would you identify as your top 3 key takeaways from today's experience?

ii) Where would / will you apply the principles / strategies learned / newly acquired skills in your daily work/ upcoming project?

iii) Based on the key takeaways you mentioned, which of those might help address an existing challenge at work most immediately?

iv) What might be the challenges in implementing these learnings in your role?

In conclusion, in this stage the facilitator enables a comprehensive understanding of how the acquired knowledge/skillset can be practically utilized by the learners in their professional work specific environments. It is crucial at this stage for the facilitator to guide the conversation, keeping it focused on key learnings derived from the experience and immediately exploring their relevance and usefulness in participants' current roles or addressing existing problems. Additionally, the facilitator ensures a discussion on anticipated challenges in implementing this newfound knowledge or skill, as it sets the stage for the critical next steps.

d) The Application Stage: Questions to help transfer learning to actual work-life?

The Application stage explores effective strategies for seamlessly integrating newly acquired knowledge and skills into real work scenarios. Facilitating this transition involves guiding learners to reflect on implementation plans. The facilitator plays a key role in assisting participants to develop workable approaches for incorporating new skills into their daily tasks. Serving as a bridge, the facilitator employs targeted questions to prompt individuals to consider applying acquired knowledge in their specific work contexts. This stage ensures that learners think concretely about converting their newly acquired framework into everyday practice. Utilizing questions from the BLUE quadrant of Weiderhold's Q Matrix, here are some inquiries that can help learners arrive at concrete actionable steps for making the acquired skills and knowledge effective in their specific context.

	Person	Reasons	Means
Probability	Who would?	Why would?	How would?
Prediction	Who will?	Why will?	How will?
Imagination	Who might?	Why might?	How might?

i) Share 2 action items with the group of how you will apply the new skills to enhance your role or the existing workflow in your team?

ii) Who among your superior / peers / team member might / might not help you successfully implement XYZ?

iii) How might you retrace and restart the implementation process if suppose you lose traction or lose internal support midway?

In conclusion, the success of this debrief stage is marked by learners not only comprehending the theoretical framework but also actively considering how to translate it into everyday practice. As a key consideration for this final stage, facilitators must frame questions based on key learnings and takeaways, encouraging responses from at least three different learners. This approach not only cultivates a sense of decisive momentum and preparedness among participants but also assists the group in exploring actionable steps, including the early identification of internal supporters and resistors.

A quick comparison of the questions asked in an unstructured debriefing session and a debrief session structured with the use of the Weiderhold's Q Matrix shows that in the latter there is a possibility of the learner going deeper into the experience, examine blind spots in learning, question the reason for why they made certain choices and what consequences the choice making had on their future outcomes. The awareness of the other learners' actions is also highlighted using structured debriefing.

While asking questions seems like an easy skill, we contend that even facilitators need prompts, preparation, and practice to ask questions that can help them to debrief in an effective way.

CONCLUSION:

In this paper we have presented the advantages of incorporating Weiderhold's Q Matrix to structure OBS debrief through the 4 stages of debriefing within a constrained timeframe. By providing sample questions from each quadrant and highlighting crucial watch-outs, we illustrated how facilitators can effectively navigate and drive each stage of the debrief based on Weiderhold's Q Matrix. Leveraging our collective experience and insights, we believe that adoption of the Q Matrix would enhance the potential of successful knowledge / skill transfer for learners. Our comparative analysis, drawn from cumulative observations of peers and professionals, underscores the methodology's superiority in driving effective debrief conversations, maximizing "ah-ha" moments in minimal time. At this time, we do not have structured data collected on the learning derived from the two kinds of debriefing methods however, this can be collected in future studies.

REFERENCES:

Bell, R., & Loon, M., (2015). The impact of critical thinking disposition on learning using business simulations. International Journal of Management Education, 13 (2), 119-127.

Dewey, J. (1938). Experience and education (1st ed.). Touchstone.

Fanning, R. M., & Gaba, D. M. (2007). The role of debriefing in simulation-based learning. Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare, 2(2), 115-125.

Macdiarmid, R., Neville, S., & Zambas, S. (2020). The experience of facilitating debriefing after simulation: A qualitative study. Nursing Praxis in Aotearoa New Zealand, 36(3), 51-60.

Mawhirter, D. A., & Garofalo, P. F., (2016). Expect the unexpected: Simulation games as a teaching strategy. Clinical Simulation in Nursing, 12(4), 132-136.

Jasper, M., Rosser, M., & Mooney, G. (2013). Professional development, reflection and decision making in Nursing and Healthcare. John Wiley & Sons Ltd.

Shaffer, D. W., Squire, K. R., Halverson, R., & Gee, J. P. (2005). Video games and the future of learning. Phi Delta Kappan, 87(2), 105-111.

Wiederhold, C. (1995). Cooperative learning and higher-level thinking: The Q-Matrix with question manipulatives. Kagan Publishing.