

Brandon Hall

EXCELLENCE IN TECHNOLOGY AWARDS

GOLD

2017

SwissVBS Helps Learners Retain Knowledge, Master New Competencies

SwissVBS

Best Advance in Mobile Learning Technology March 2018

Company Background



Company At-a-Glance	
Headquarters	St. Gallen, Switzerland (offices in Munich and Toronto)
Year Founded	2001
Revenue	5 million (2015)
Employees	30
Global Scale	SwissVBS is structured around two regions, the Americas and Europe. It serves the United States, Canada, Switzerland and Germany market
Customers/Output, etc.	SwissVBS offers learning solutions for mobile training reinforcement, sales enablement, cloud-based delivery, learning analytics, learning design consulting, and rich media content creation. Primary focus is the enterprise sector. Clients: Allianz, BMW, Colgate, Deutsche Bank, Novartis, Miller Heiman Group, Wiley, Rogers, GE, Starbucks, SANS, Pitney Bowes, LafargeHolcim, Nestle, SAP, Schindler, World Economic Forum.
Industry	Learning & Development
Website	www.swissvbs.com



Value Proposition

SwissVBS' ECHO is a training reinforcement solution that combines mobile, cloud, and artificial intelligence technologies to help learners retain knowledge better and master new competencies.

The target market of this product is the enterprise or corporate training sector. Companies such as GE, Starbucks, Vail Resorts, Chick-fil-A, ASCO, and SANS have selected ECHO to reinforce the training they provide to their sales, customer service, and IT teams.

Organizations invest a substantial amount of money in online and classroom courses. Most corporate learning initiatives don't reach their potential ROI due to the "forgetting curve." Different studies have shown that most employees forget 70% of what they have learned in initial training after 24 hours. 90% of what has been learned is lost in one week. In one study, only 30% of what was taught in training transfers to job performance.

By combining well-timed reinforcement practices, dynamic quizzes, and mobile capabilities, ECHO improves employees' long-term retention of what they learned in initial training. In this way, ECHO can boost the outcome of most corporate training programs substantially.

ECHO complements customers' existing online and classroom initiatives. Rather than replacing a company's current course development or learning infrastructure initiatives, it adds a training reinforcement dimension to each initiative. ECHO serves as an immediate ROI multiplier for these programs.

The development of ECHO was inspired by our experience of serving the training needs of the enterprise sector over the last 16 years, a dozen or so cognitive science studies that are summarized in the Amazon bestselling book "Make It Stick".

Every online and ILT course can benefit from an ECHO enabled reinforcement plan. One of the first applications of ECHO was at GE where ECHO is used to reinforce what GE sales reps learn in the Professional Selling Skills ("PSS") ILT course. The PSS reinforcement plan is 30 days long and starts immediately after the reps complete the PSS course. It consists of a number of retrieval practices, flashcards, tips, mobile learning modules and awards and incentives. GE sales reps complete the ECHO reinforcement program entirely from their smartphones. ECHO's dynamic engine assesses the mastery level of each rep across all the program's 12 competencies and assembles a set of tailored daily tips, retrieval practices and recommended mobile micro modules to move what they have learned to



their long-term memory. By making selling skills more enduring, the reps are better equipped to apply what they have learned in real world.

David Jarvis, Global Leader, Learning & Development at GE, summarizes the benefits of an ECHO reinforcement plan as follows, "At GE, we hope to overcome the forgetting curve and enable performance support using the ECHO application. The implications are obvious. Knowledge retention is sustained over time. Learning scrap is significantly reduced. The ROI is increased on the investments made by the business for learning resources. This tool enables our transformation from Learning and Development to Performance and Development." He also added: "The analytics are the bomb! For the first time, we have data related to the development of competencies for each individual. This allows the learning team to assess who needs additional resources for the continuing development of specific competencies. The analytics tell us exactly who needs what information taking the guess work out of the successful transfer of learning."

Product or Program Innovation

ECHO's breakthrough innovation is its intelligent retrieval practice engine. The engine is used to assemble dynamically and serve retrieval practices, daily tips, and recommended micro learning resources to each learner to close competency gaps for a given body of knowledge in the shortest time possible. Each retrieval practice is personalized to each learner based on the engine's assessment of that learner's current mastery level.

The engine works in conjunction with ECHO's core reinforcement features such as optimum reinforcement schedules, mobile push notifications and awards to make mastery of the subject matter enduring.

The retrieval practice engine dynamically draws content from a large reinforcement content repository developed by either SwissVBS's or a client's learning designers. Learning designers use a client's existing training material to create this repository. The process of developing the content of the repository is fairly straightforward. SwissVBS has developed a comprehensive methodology that ECHO clients can use for this purpose and offers a three-week Training and Certification Certificate for entities that wish to independently develop their content for ECHO.

One of the first steps in designing a reinforcement program is defining the competencies that make up the program's body of knowledge. Most reinforcement programs have between five to 15 competencies. Each practice in the reinforcement content repository is then mapped to one of the defined competencies.



Once the reinforcement program starts, the engine starts to serve retrieval practices to learners based on the program's reinforcement schedule. The engine tracks how each learner interacts with the retrieval practices and uses this information to determine the learner's mastery level for each competency. These mastery measurements are, in turn, used by the engine to dynamically adjust subsequent retrieval practices.

ECHO's intelligent retrieval practice engine can be tuned in four different ways to meet the unique needs of each industry and learning program:

- The convergence rate setting of the engine determines how quickly the engine should draw a conclusion as to whether a learner is struggling with or has mastered a competency. Training reinforcement plans in different industries have different optimum convergence rates.
- The confidence level of the engine can be tuned for each reinforcement program. Confidence level denotes the minimum certainly level that the learner has mastered a competency. High stakes learning programs such as learning mass transit signaling use a high confidence level where as a low stakes soft skills reinforcement program may use a low confidence level.
- The learning erosion rate setting of the engine specifies the rate at which the target learners for a given reinforcement program are likely to lose their mastery of various competencies after they have reached it. If the erosion rate is set to zero, the engine will not serve further retrieval practices in a given competency once it determines the learner has mastered that competency.
- The interleaving ratio setting of the engine determines the extent to which the engine should interleave (blend) retrieval practices from different competencies as opposed to focusing on one competency at a time. Achieving the right level of interleaving practices is scientifically proven to result in better long-term retention.

SwissVBS learning designers can recommend the initial settings for the above parameters for a new reinforcement program and these settings can be fine-tuned over time for an optimum training reinforcement outcome.

This granular configurability gives ECHO clients a comprehensive tool, in combination with ECHO's powerful analytics, for continually improving their learning reinforcement plans.



Unique Differentiators

ECHO's key differentiations are as follows:

- Effective retrieval practices. Retrieval practices are the heart of an ECHO reinforcement program. Learning designers can define retrieval practices that are effortful, spaced, interleaved, varied, and include delayed feedback. These five attributes make retrieval practices effective for long term retention of learning as shown in numerous scientific studies summarized in the *Make It Stick* book.
- **Dynamic engine.** ECHO measures each learner's mastery of various competencies during the course of a defined reinforcement plan and automatically adjusts the daily tips, recommended learning modules, and subsequent retrieval practices to meet and maximize the learners' long-term retention.
- Mobile-first architecture. The ECHO app is a native mobile app. Both Android and iPhone versions of the app are available. This app works in conjunction with the ECHO intelligent cloud. Because of its native mobile implementation, the ECHO app offers a very fast and touch-friendly user interface that is free of any web technologies. The native implementation also enables learners to use the app in an offline mode. Effective learning reinforcement plans demand a fast user experience and offline support.
- Configurability. The ECHO intelligent retrieval practice engine can be configured in a variety of ways to meet the unique needs of each training reinforcement program. The engine's convergence rate, confidence level, learning erosion rate, and interleaving ratio can be adjusted to meet the requirements of low stakes and high stakes reinforcement programs.
- Integrated Business Intelligence. ECHO provides unprecedented granular data with six standard dashboards and 50+ real-time metrics to take the guesswork out of knowledge transfer. ECHO is fully integrated with the latest version of Microsoft Power BI. Business managers and L&D teams can use the platform's strong BI capabilities to track and measure the success of each reinforcement program by quickly developing mobile accessible dashboards.

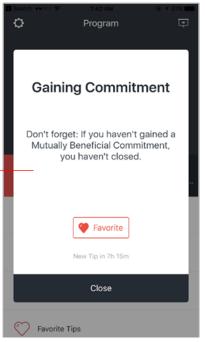


Figure 1: App Screenshot 1

The home screen of the ECHO iPhone app after the learner has downloaded the GE PSS reinforcement program. The program is a self contained package that can be consumed at anytime even when the learner does not have a network connection.



ECHO serves daily tips to the learner based on its assessment of the learner's current competency gap. Learners can favorite tips. ECHO analytics reports back on tips favored to help learning designers improve the reinforcement content.



Source: SwissVBS 2018



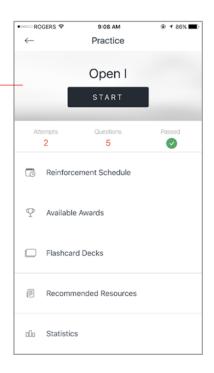
Figure 2: App Screenshot 2

Learners can view the list of retrieval practices for the current reinforcement program. Learners can see which ones they has passed or completed and which ones need further practice.

●cocc ROGERS 🗢	9:00 AM	# 87%
\leftarrow	Practices	
Open I		Passed
Discover I		
Satisfy I		
Close I		
Needs Satisf	action I	
Open II		
Discover II		Locked

Some retrieval practices are locked. ECHO will unlock them when the learner completes pre-requisite practices. Learners can always tap on the locked practices to see their prerequisites.

Launch page of a sample "Open 1" retrieval practice.



Source: SwissVBS 2018

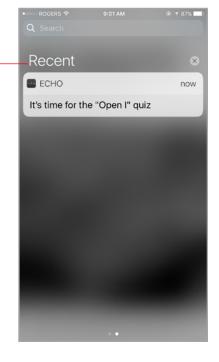


Figure 3: App Screenshot 3

Retrieval practices can have a reinforcement schedule. This one does. Learning designers specify the recommended reinforcement schedule. Learners can override the schedule to meet their preferences.

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7:44 AM	Thursday, Octobe	er 06		۵

ECHO sends a mobile push notification to the learner according to the reinforcement schedule set. ECHO uses local push notifications. Learners receive the notifications even if they don't have a network connection. When the learner taps on the push message, he/she is taken directly to the retrieval practice.



Source: SwissVBS 2018



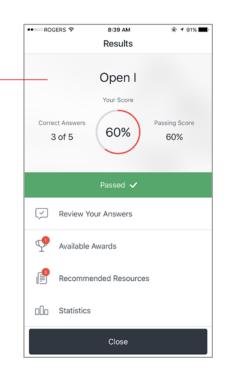
Figure 4: App Screenshot 4

A sample screen of a quiz type retrieval practice. ECHO also supports flashcard based retrieval practice.

ECHO supports many quiz forms, including: single correct answer, multiple correct answers, fill in the blank and free form answers. Learning designers can specify a hint for each question and an explanation for each answer choice. Learning designers can specify whether the explanations should be displayed for correct or incorrect answers or both, to maximize the learning benefits. Quiz type practices can be timed and can be set to show delayed feedback to increase the "desirable difficulty" level.

After completing each practice, the learner can view his/her performance, review answers against correct answers, and view awards and overall statistics across the entire reinforcement plan.

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		1 of 5	
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Source: SwissVBS 2018



Figure 5: App Screenshot 5

After completing each retrieval practice, ECHO assesses the learner's competency gaps and recommends a set of learning resources that the learner can benefit from in order to master the competencies that he/she is struggling with. All of these learning resource were saved on the learner's device when he/she downloaded the reinforcement program from the cloud and can be accessed offline.

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The learner can access all of the learning resources of this reinforcement program from the ECHO home screen. ECHO supports the following resource types: video Microlearning modules, interactive micro learning modules, podcasts, PDF, Word, Excel and PowerPoint.

Some learning resources are locked in this program. ECHO will unlock them when the learner earns one or more rewards. Learners – can tap on the locked resources to see what they need to achieve in order to unlock the resources.

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Þ	Acknowledge Added: 8:29pm May 19, 2016	4
Þ	Transition Added: 8:29pm May 19, 2016	¢
8	Confirm and Check Added: 8:30pm May 19, 2016	¢
Þ	Needs Definitions Added: 8:30pm May 19, 2016	¢
8	Mutually Beneficial Commitments Added: 8:30pm May 19, 2016	¢
Þ	Skill Steps Added: 8:30pm May 19, 2016	¢
8	Respond to Indifference Added: 8:30pm May 19, 2016	¢
F	Discover	ŝ
	MODULES PODCASTS DC	CUMENTS

Source: SwissVBS 2018

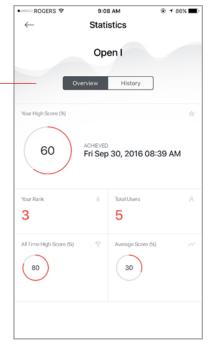


Figure 6: App Screenshot 6

Learners can see the list of awards they have won and the awards that they are challenged to win. ECHO supports the following types of awards: effort based, achievement based, relative to others and combination. Learners can tap on the awards they are yet to win, to see what they need to do to earn those awards.

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٢	Week Streak		

Learners can view their overall performance in this reinforcement program and how that compares with others.

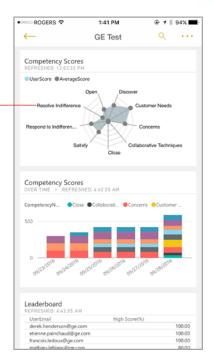


Source: SwissVBS 2018



Figure 7: App Screenshot 7

Line of business management can use Microsoft Power BI to view the progress of learners as they progress through the reinforcement programs. L&D teams can use the reports to improve the reinforcement content and fine tune the ECHO intelligent retrieval practice engine.



Source: SwissVBS 2018

Measurable Results

GE sales reps use ECHO to reinforce what they have learned in the Professional Selling Skills instructor-led course for a period of 30 days following the completion of the course. The adoption rate of ECHO as a reinforcement solution is close to 100%, with 95% of users expressing satisfaction with it.

Using A/B testing and benchmark tests at the beginning and end of the reinforcement plan, GE found a statistically significant improvement in learning retention (+30% score improvements) for those who used ECHO versus those who didn't. In addition, learners who spent more time doing retrieval practices were able to improve the score on their knowledge test. This is significant for GE because the company requires salespeople to start applying what they learn immediately in the field. As a result of these findings, GE has opted to deploy reinforcement for all salespeople who complete the same sales methodology program.



About Brandon Hall Group

Brandon Hall Group is a HCM research and advisory services firm that provides insights around key performance areas, including Learning and Development, Talent Management, Leadership Development, Talent Acquisition, and HR/Workforce Management. With more than 10,000 clients globally and more than 20 years of delivering world-class research and advisory services, Brandon Hall Group is focused on developing research that drives performance in emerging and large organizations and provides strategic insights for executives and practitioners responsible for growth and business results.

Inspiring a Better Workplace Experience

Our mission: Empower excellence in organizations around the world through our research and tools each and every day. At the core of our offerings is a Membership Program that combines research, benchmarking and unlimited access to data and analysts. The Membership Program offers insights and best practices to enable executives and practitioners to make the right decisions about people, processes, and systems, coalesced with analyst advisory services which aim to put the research into action in a way that is practical and efficient.

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For more information, contact us at success@brandonhall.com.