Using xAPI in Adaptive Virtual Learning

Mr. Scott Bybee  
CAE USA

Mr. Martin Bogan  
CAE USA
Using xAPI in Adaptive Learning

Scott Bybee and Martin Bogan
Simulator Data Captured

- objectives completed
- performance rating
- flight recordings
- telemetry (e.g. instrument data)
- conditions
- time
Virtual Reality
Data Captured

no SCORM data
Everything Data Captured

Simulation | LMS | VR/AR/MR | CBT | IBT/classroom | ad-hoc | self-study

Formal Training

Informal
experiAPI
xAPI Powered Adaptive Learning

MQ9 GCS Pilot Training
GCS Data Flow

Reports → xAPI data → LRS → LMS → Reports

VR SIMULATION  |  PRETEST
150% increase in data points collected
Adaptive Learning ~ Past

- pretest pass?
- threshold met?
- NO
- shortened lesson content
- NO
- comprehensive lesson content
- advance forward
Adaptive Learning ~ Present
What Should be Tracked
3000 objectives
3000^x branching opportunities
Alex landed aircraft \[implication\] barely develop a data structure and strategy C-12
Profiles
application specific concepts
statement patterns and templates
extensions
DatParSfity strategy

industry specific verbs/objectives + universal actions
e.g. video controls

industry extensions
(provide context with descriptive data)
Implication 3
changes to project management
Traditional Project Management Strategy
Am I on budget?
AGILE
Implication 4
increase in analytics
Kirkpatrick’s Levels of Training Evaluation

1. Satisfaction experience
2. Knowledge retention
3. Practice testing
4. Behaviors
5. Results ROI

SCORM vs xAPI
Do It Together

join determined community to practice
work with others to stay steadfast
standardize your strategy
Using xAPI in Adaptive Learning
Scott Bybee: Tech Lead ISD
(813) 880-7246
scott.bybee@caemilusa.com

Martin Bogan: UX Design R&D Project Lead
(813) 887-1553
martin.bogan@caemilusa.com

CAE USA: Defense & Security
2402 Wildwood Ave, Suite 501, Sherwood, AR 72120 USA
www.cae.com

RESOURCES
ADL.net
https://github.com/adlnet/xapi-profiles
http://melslearninglab.com/2018/07/02/big-xapi-list/
https://adopters.adlnet.gov