Implementing xAPI Profiles in the Navy: Case Studies and Recommendations

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Implementing xAPI Profiles in the Navy

Case Studies and Recommendations

Tim Welch (NAWCTSD) with Jason Haag, Rob Chadwick, Jono Poltrack (Veracity)
In this session, you will learn about:

1. NAVY RRL AND XAPI
2. THE FUNDAMENTALS OF XAPI PROFILES AND BENEFITS
3. XAPI NAVY CASE STUDIES AND PROFILES IN PRACTICE
4. REAL WORLD FINDINGS AND LESSONS LEARNED
5. TIPS FOR ESTABLISHING AN XAPI PROFILE & DATA STRATEGY
e Sailor/e Helm

e Sailor

• Provided various tablets to Recruits for use during training
• 3 courses were developed with xAPI statements
• Data was collected during the last two weeks of the e Sailor pilot
eSailor/eHelm

eHelm and DEP VRT

- Delayed Entry Program Virtual Recruit Tracker
- Delayed entry recruits and recruiters in a single recruiting district
- eHelm on BYOD (iOS and Android)
- Interactive content registered delivered through QR code and cloud distribution
- Tracked via xAPI in a PQS-based mgt. console (MC) for recruiters
What were we able to get out of those experiments
<table>
<thead>
<tr>
<th>Sailor</th>
<th>Completion Status</th>
<th>Progress Percentage</th>
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<tbody>
<tr>
<td>christianhinds99</td>
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<td>40%</td>
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<tr>
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<td>Red</td>
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<td></td>
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<td>johnathanvalentine99</td>
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<tr>
<td>guillermolugardobaez99</td>
<td>Green</td>
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### Weightloss Leaderboard

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<td>3lbs</td>
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### Exercise Leaderboard

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<td>Thu Mar 21 2019</td>
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<tr>
<td>77 Curl Ups</td>
<td>6380d839-b48d-454c-8a05-e15232abb453</td>
<td>Fri Apr 12 2019</td>
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<tr>
<td>12:00 - 500-Yard Swim</td>
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<tr>
<td>10:00 - 1.5-Mile Run</td>
<td>864677de-e4e0-41d5-a092-305f24e39d2e</td>
<td>Tue Apr 09 2019</td>
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</table>
-0.067 Correlation

How much does using the app affect BMI?
e Helm


Top Videos

- **Faces of Boot Camp**
  - 25 views. https://www.youtube.com/embed/cQXknMjW5s

- **Facing Movements Video**
  - 12 views. https://www.youtube.com/embed/uORc7gYgRt

- **Sailor's Creed Video**
  - 11 views. https://www.youtube.com/embed/so241qMZxg

- **SAPR-D**
  - 10 views. https://www.youtube.com/embed/YFpPEZ34lRk
What went wrong

eSailor

- Wanted to visualize/analyze data schemas outside xAPI
- Credentials baked into content
- Lost statements (talked to the wrong server)
- Ended too soon

eHelm

- The “profile” was too narrow at the start
- Esoteric verb definitions
- Assessment strategy was their but not our main goal (engagement vice achievement)
- Disconnect between developers and designers
- Lack of metadata
What went right

**eSailor**
- SCORM profile was a great starting point
- Standard report out of the box

**eHelm**
- Kept it simple and within the intent of xAPI, didn’t create a new extension (results)
- Too narrow allowed measured expansion
- Elegant solution to PII and LRS login
- Hammered out details upfront (What does 80% mean)
What do we need to do next?

Data + strategy = xAPI profile (and other things too)
Limited Readiness
“Check the box”

MOS Based Readiness
Recommendations by Provider Type. Driven by critical tasks/experiences

Course Completions
Sub-Course Completions

Readiness Critical Tasks/Experiences
Value
Difficulty

Standardized Metrics/Thresholds

LOs

-LO’s vs. Media
-Instructor Involvement

Media Analysts/Selection
Assessment Type Analysis/Selection
AAR Analysis/Selection

80% Sim
20% Live

-Observation Rubric
-Auto Generated

Debrief

Near Term

Future

Individualized Readiness
Individualized Recommendations based on KSAs

Course Completions
Sub-Course Completions
KSAs

KSA Standardized Metrics/Thresholds

KSAs vs. Specific Media

Media Fidelity Analysis
Assessment Type Analysis/Selection
AAR Analysis/Selection

-LVC
-Team training

-Hands on Simulations

Video Review

Targeted Training per MOS
Potential to Calculate MOS Proficiency and Decay

Individualized Targeted Training
Individualized Proficiency and Decay based on KSAs

Annual Requirements for Credential/Certification Tracking

Example

Results

 NawCTSD Public Release 19-ORL063 Distribution Statement A - Approved for public release; distribution is unlimited
Develop a Data Strategy

1. Capture Scope of Warfighter Journey
   - K-12
   - Universities
   - Work Experience
   - Basic Training
   - Home Station Training
   - Schoolhouse Training

2. Create Metrics/Thresholds for Performance
   2a. Competency Models
       Skill/Knowledge Frameworks
   2b. Assessment Strategy
       Optimal way to assess the skill/knowledge component

3. Determine Data Strategy
   3a. xAPI Profiles
       Standard format for collecting data
   3b. xAPI and Content Metadata Strategy
       Standard definition of all relevant learning activities

4. Training Content Deployment
   - Technologies for Training Deployment
     - Instructor Led
     - Learning Management Systems
     - Simulation
     - Field Training Exercises
     - Extended Reality
     - Mixed Mode
   - Appropriate Training Media for objectives
   - Optimal Spacing and Timing of Training

5. Data Aggregation and Storage
   - Iterative Data Strategy
   - Development and Testing
   - Data exchange library

6. Data Analysis & Visualization
   - Cross User Needs Analysis/
   - Visualization Development
   - Training effectiveness evaluation