xAPI and health professions education

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MedBiquitous Mission

To develop and promote technology standards for the health professions that advance lifelong learning, continuous improvement, and better patient outcomes.

Work to date

1) Convened MedBiquitous xAPI Interest Group to explore:

- Needs of health profession educators with regard to more granular tracking

- Do the existing vocabularies and structures of XAPI meet the needs

- If yes, are guidelines necessary for health professions educators to use XAPI effectively?

    - http://groups.medbiq.org/medbiq/x/VQCvAQ

Work to date (continued)

- 2) Developed use cases and scenarios for healthcare

- 3) Developed data requirements based on the use cases

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XAPI Interest Group

Pages

Blog

SPACE SHORTCUTS

Shared links

CHILD PAGES

Data Requirements

Sample Statements

+ Create child page

Space tools ▾   «

✏ Edit   👁 Watch   ↗ Share   ⚙ Tools ▾

Sample Statements

Created by Valerie Smothers, last modified on Feb 26, 2015

Statements related to code simulation

Jane Doe completed CPR simulation.

Jane Doe demonstrated competency "perform chest compressions" to level 3, mastery.

Sally Preceptor completed CPR simulation checklist.

Jane Doe demonstrated competency "assessed circulation" to level 3, mastery.

Jane Doe completed CPR virtual patient.

Jane Doe demonstrated competency "Select appropriate medication" to level 3, mastery.

Jane Doe interviewed a patient under direct supervision within the course "taking history" on Jan 15, 2015 at 8:08 AM EST.

Sally Preceptor and James Observer observed Jane Doe's patient interview on Jan 15, 2015 at 8:08 AM EST.

Sally Preceptor videotaped Jane Doe's interview of a patient on Jan 15, 2015 at 8:08 AM EST.

Sally Preceptor rated Jane Doe on the competency interviewing a patient with a score of 4 using the Patient Interview performance framework.

Percy Shelley visited node A in Virtual patient Jerry Heartattack.

Virtual Patient Jerry Heartattack triggered alert 123, unsafe drop in blood pressure.

Percy Shelley scored 80 on Virtual Patient Jerry Heartattack in the domain airway management.

Percy Shelley received feedback 234 "You did not manage the patient's blood pressure" in activity Virtual Patient Jerry Heartattack.

Percy Shelley is a member of ER team A .

Jane Doe performed pulse assessment.

Jane Doe communicated pulse to ER team A

Profile: Medbiquitous Virtual Patient (virtualpatient)

Working with Medbiq xAPI Interest Group and Medbiq Virtual Patient standard to create a Profile and Recipe to describe virtual patient activities

Recipes   Activities   Linked Identifiers

Name	Uri
Recipe for Medbiquitous Virtual Patient (MVP) standard players	http://id.tincanapi.com/recipe/virtualpatient/MVP/0.9

Recipe for Medbiquitous Virtual Patient (MVP) standard players   Go to Details

Basics

- All statements include the Recipe ID in the 'category' context activity list.
- Most statements include an Agent for the user as the 'actor' property.
- Most statements include the virtual patient Activity as the 'object'.
- Virtual patient Activity Definition includes the following: ** Has the 'type': http://adlnet.gov/expapi/activities/simulation

Statements

Open

Sent when the VP starts to play.

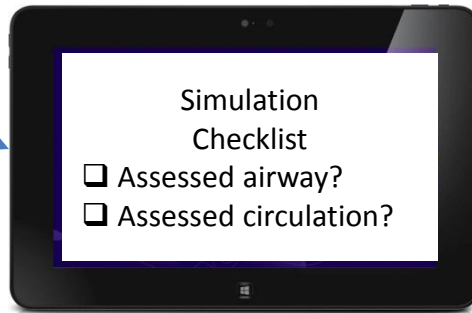Verb: http://activitystrea.ms/schema/1.0/open

Includes the timestamp of the point in the VP where playing was started

Complete

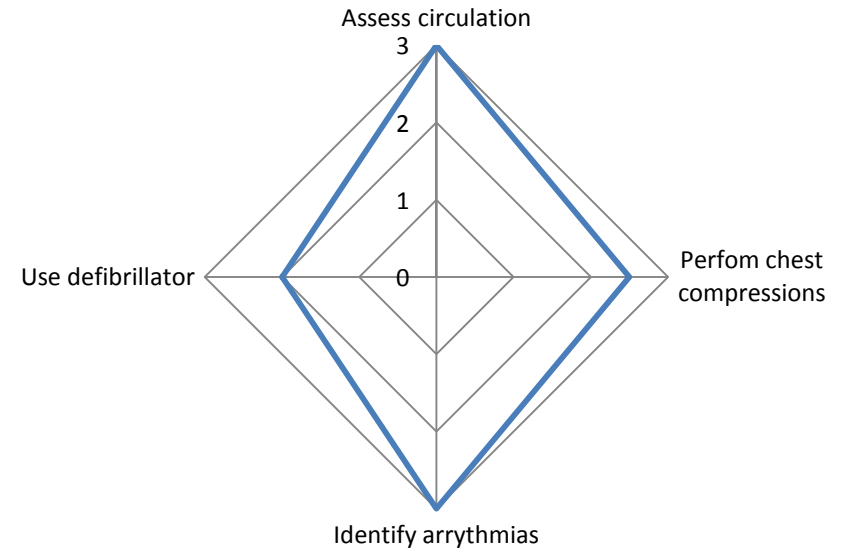User has completed the case. Reached a node designated by the case author

Created by David Topps and Andrew Downes

VA Simulation Reporting and Analysis

Learner Record Store

Simulation Checklist
- ☐ Assessed airway?
- ☐ Assessed circulation?

XAPI

patient.

Rosalyn Scott demonstrated competency "Select appropriate medication" to level 3, mastery.

What would you do next?

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Integrating MedBiquitous and ADL Standards to Track Simulation Activities

ACLS Competency Framework

Maintain Airway	Maintain Circulation	Select Med & Dose
• Remove…	• Perform…	• Select…
• Perform…	• Identify…	• Dose…
• Ventilate …	• Assess…	

ACLS Performance Framework

Perform Chest Compressions

Novice	Intermediate	Mastery
Depth off by > 1 SD	Depth off by 1 SD - .5 SD	Depth correct
Timing off by > 1SD	Timing off by 1 SD - .5 SD	Timing correct

XAPI Message

Rosalyn Scott completed CPR simulation

Rosalyn Scott demonstrated competency "perform chest compressions" to level 3, mastery.

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Discussion?

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