JG Jennifer Gupta

xAPI

A tutorial on how to use Storyline 360's inbuilt xAPI features

- What data is collected automatically?
- Examples
- Links to test LRS/LMS for you to play with
- Youtube video tutorials to help you
- Publish Settings
- Troubleshooting issues

Lesson 1 of 6

What data is collected automatically?

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Storyline will automatically record every time a learner begins and leaves a slide - it will use the experienced and left verbs, respectively. It also automatically records how long a user was on each slide.

2022-02-04T20:33:14.540	Jennifer Gupta **left** 'More Terms and Concepts'
2022-02-04T20:33:10.635	Jennifer Gupta **experienced** 'More Terms and Concepts'
2022-02-04T20:33:10.318	Jennifer Gupta **left** 'Using the Video Player'
2022-02-04T20:33:07.077	Jennifer Gupta **experienced** 'Using the Video Player'
2022-02-04T20:33:07.015	Jennifer Gupta **left** 'Welcome'
2022-02-04T20:33:01.484	Jennifer Gupta **experienced** 'Welcome'

Storyline will automatically record (correctly answered) or (incorrectly answered) for any graded question that exists in your course. It will also provide the score points associated with that question.

2022-02-04T20:26:54.126	Jennifer Gupta **correctly answered** 'Drag and drop each term in the right column next to its corresponding description in the left column.' with response 'statement_6RwVSc3GMNv[.]cho...' with score **1**

Clicking on the bold words (correctly answered) in the statement above, opens a drop down with further information.


```
"version": "1.0.0",
"object": {
    "id": "http://64S8ajJ1dDM_course_id/6nc6MBxMu85/6SurgljuKwX",
    "definition": {
        "name": {
            "und": "Drag and drop each term in the right column next to its corresponding d
        },
        "description": {
            "und": "Drag and drop each term in the right column next to its corresponding d
        },
        "type": "http://adlnet.gov/expapi/activities/cmi.interaction",
        "target": [
            {
                "id": "choice_60PViCfQMiO",
                "description": {
                    "und": "Case"
                }
            },
            {
                "id": "choice_6ZMqKIENpir",
                "description": {
                    "und": "Work Order"
                }
            },
            {
                "id": "choice_6RzE8W3m9o7",
                "description": {
                    "und": "BPF (Business Process Flow)"
                }
            },
            {
                "id": "choice_6nYoctrL30l",
                "description": {
                    "und": "Identify"
                }
            },
            {
                "id": "choice_6LPqBlmR86b",
```


This information contains the full details of the xAPI statement sent, which INCLUDES the answers the learner selected. This is where you will tell what a learner

answered, if they answered questions incorrectly. This information is available on the LMS as well as in xAPI form.

Lesson 2 of 6

Examples

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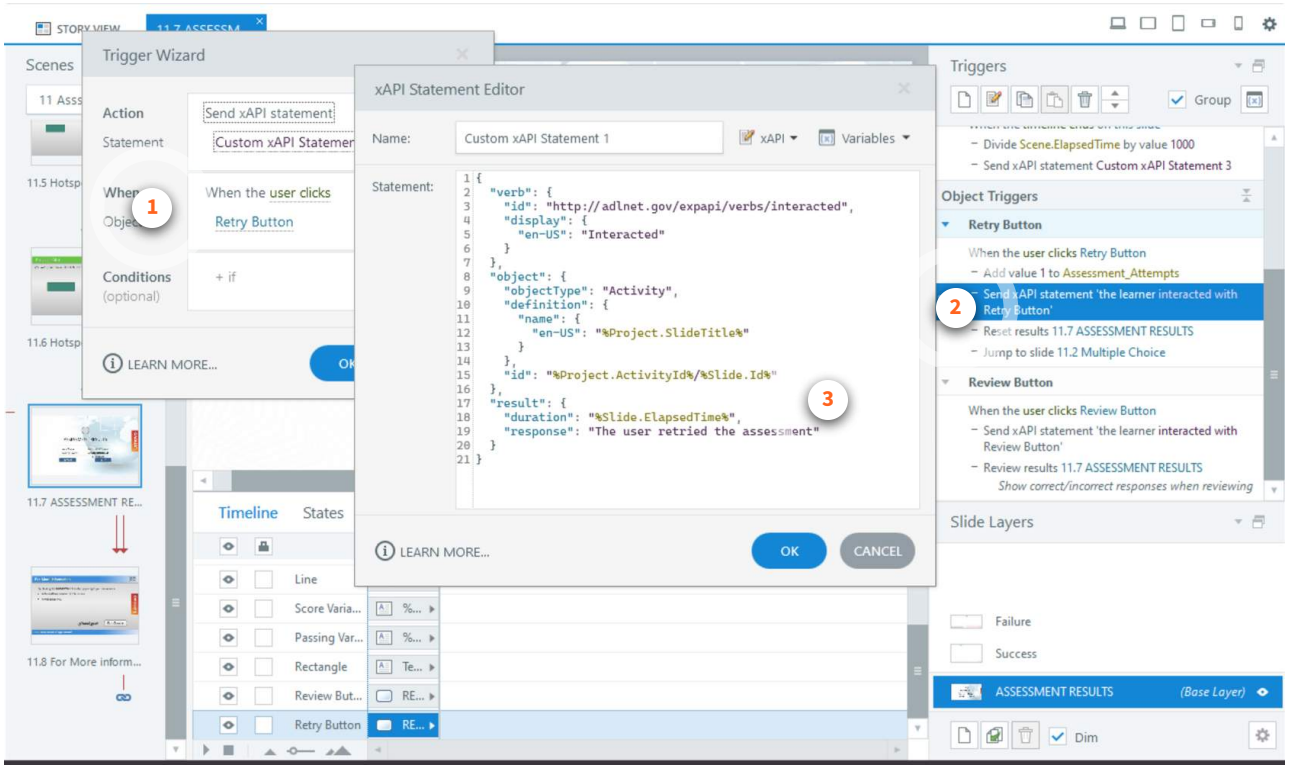
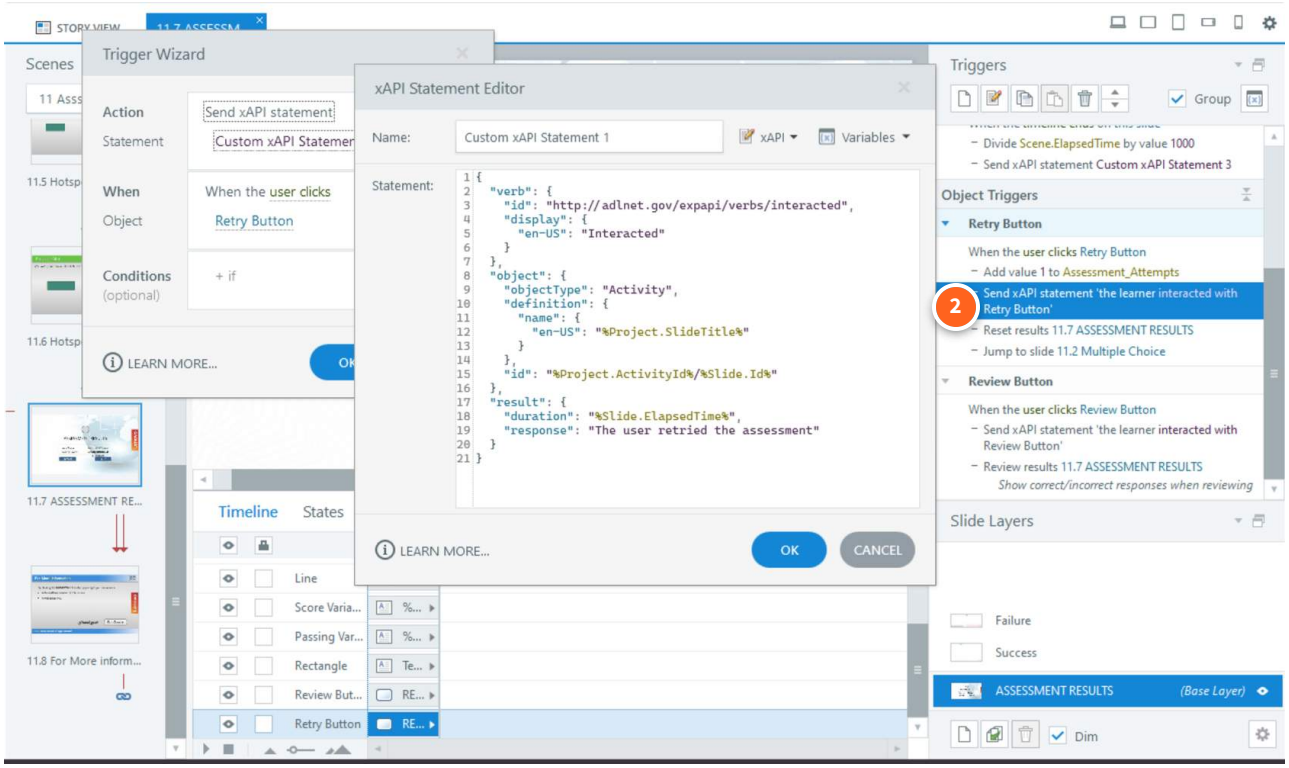
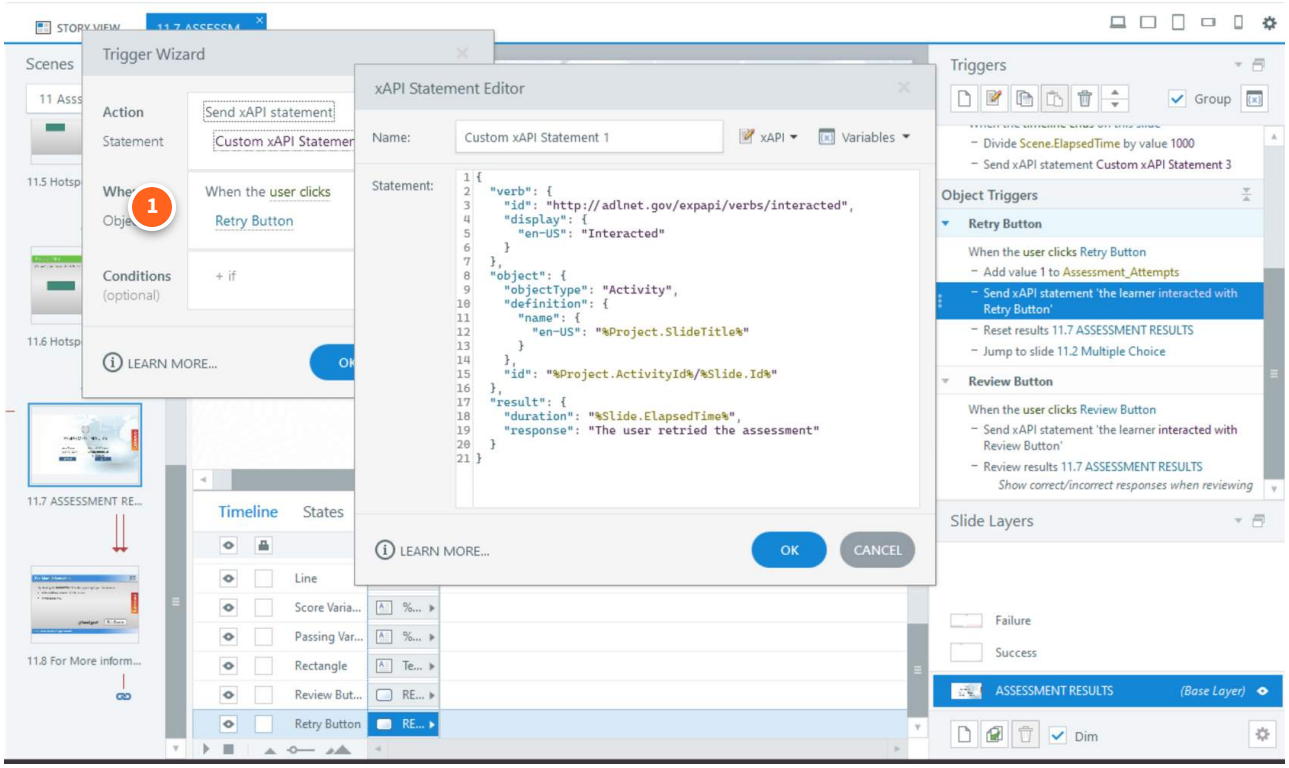
Trigger to alert a user has pressed a button

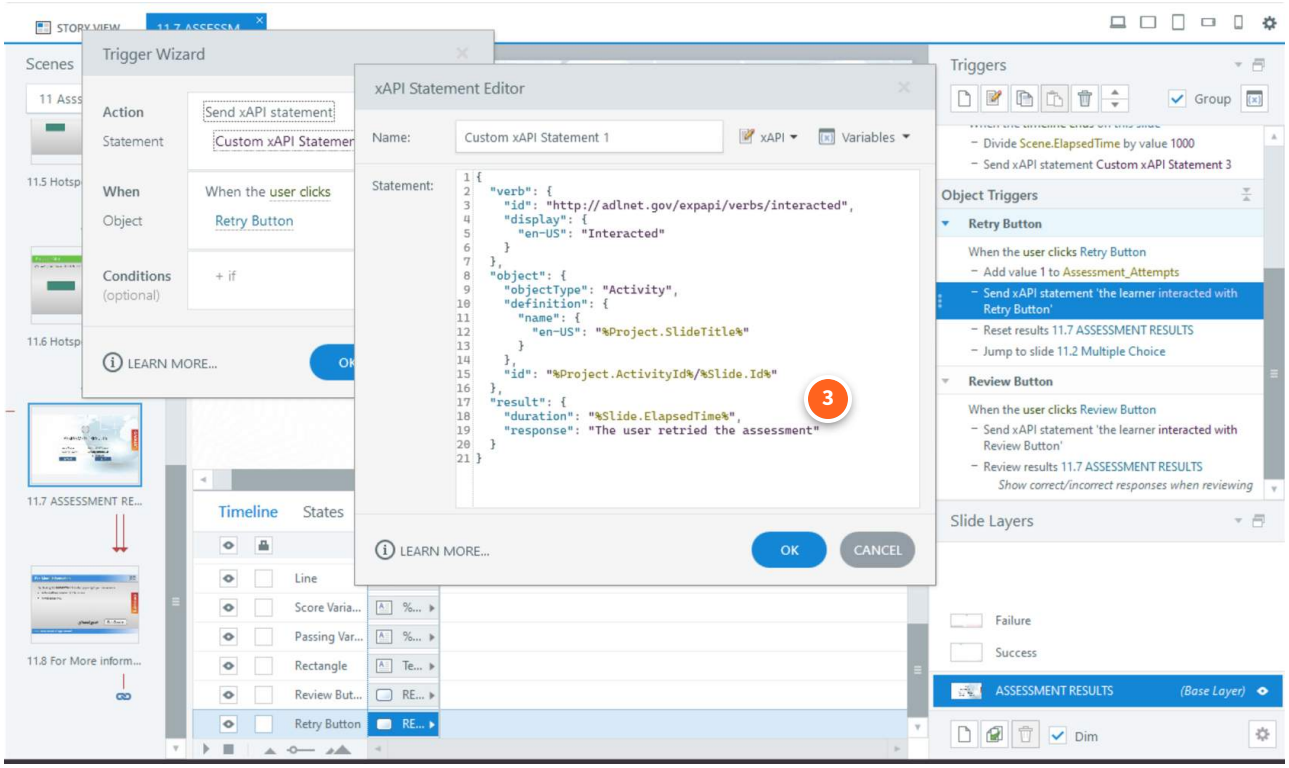


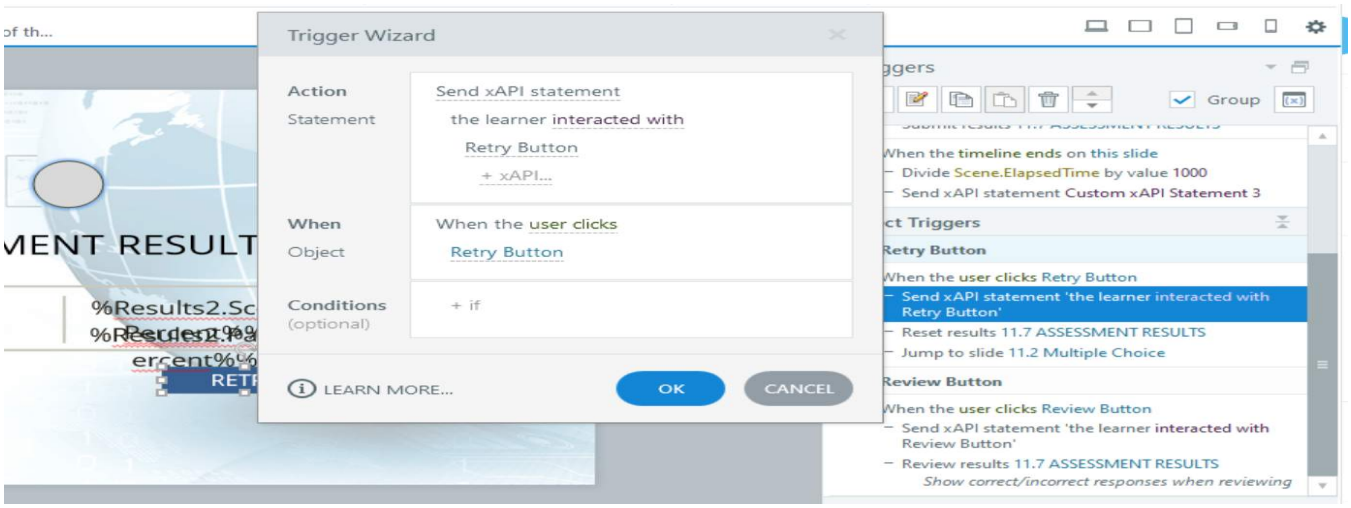


To begin our statement, we send a statement to the LRS that says that the learner has interacted with the slide -and we send this WHEN they click the Retry button



Set the statement to occur before you submit any results or jump to any other slides, but after you have updated any variables that need to be set.

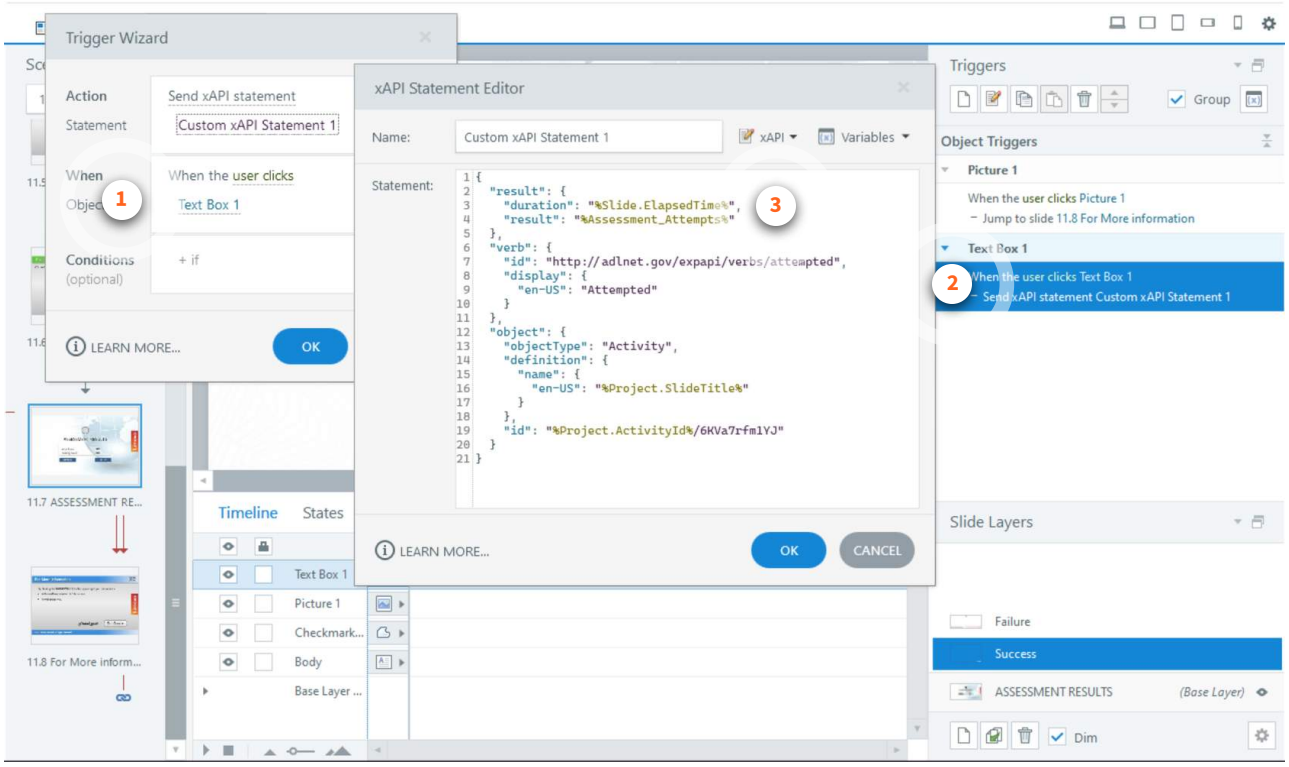


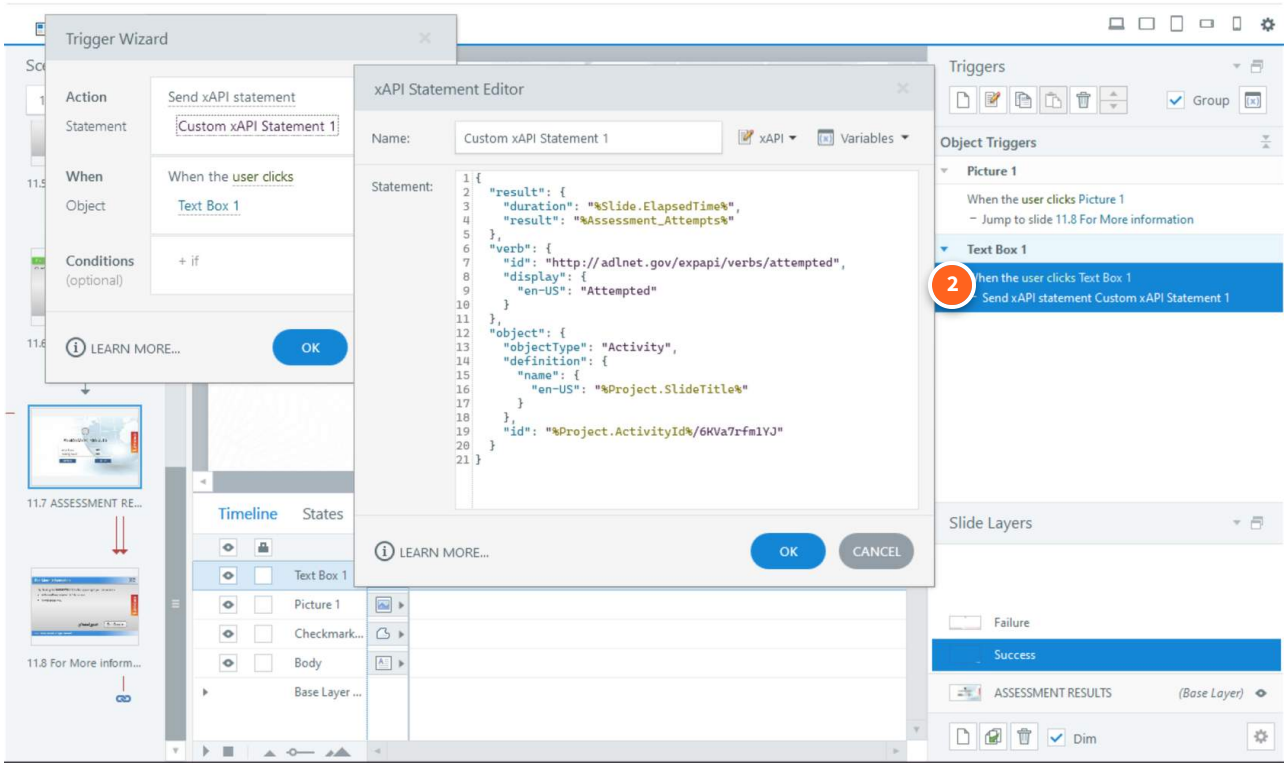


We have to ADD in a part - the RESULT. In this, the duration is set automatically, but we are adding in the "response" key:text pairing. We can write anything in the text field (as long as it's in "quotes". Here, I used plain English to tell me what happened.

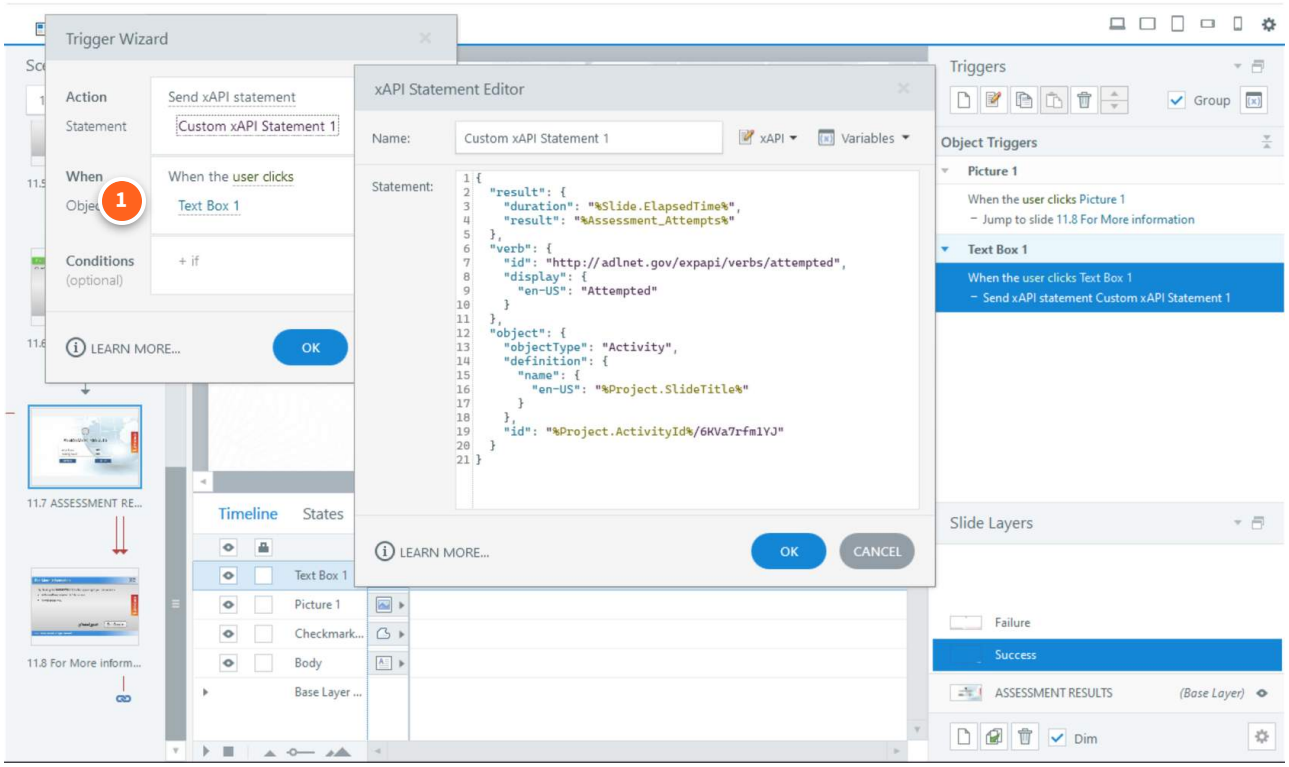
> In the above image, I kept the statement set to Send xAPI statement when the learner interacted with (SLIDE NAME) for consistency. In this way, when I query the LRS to see what was clicked and when, I can query by the slide name itself. It is my recommendation that we adopt this as standard procedure.

Trigger to send variable information

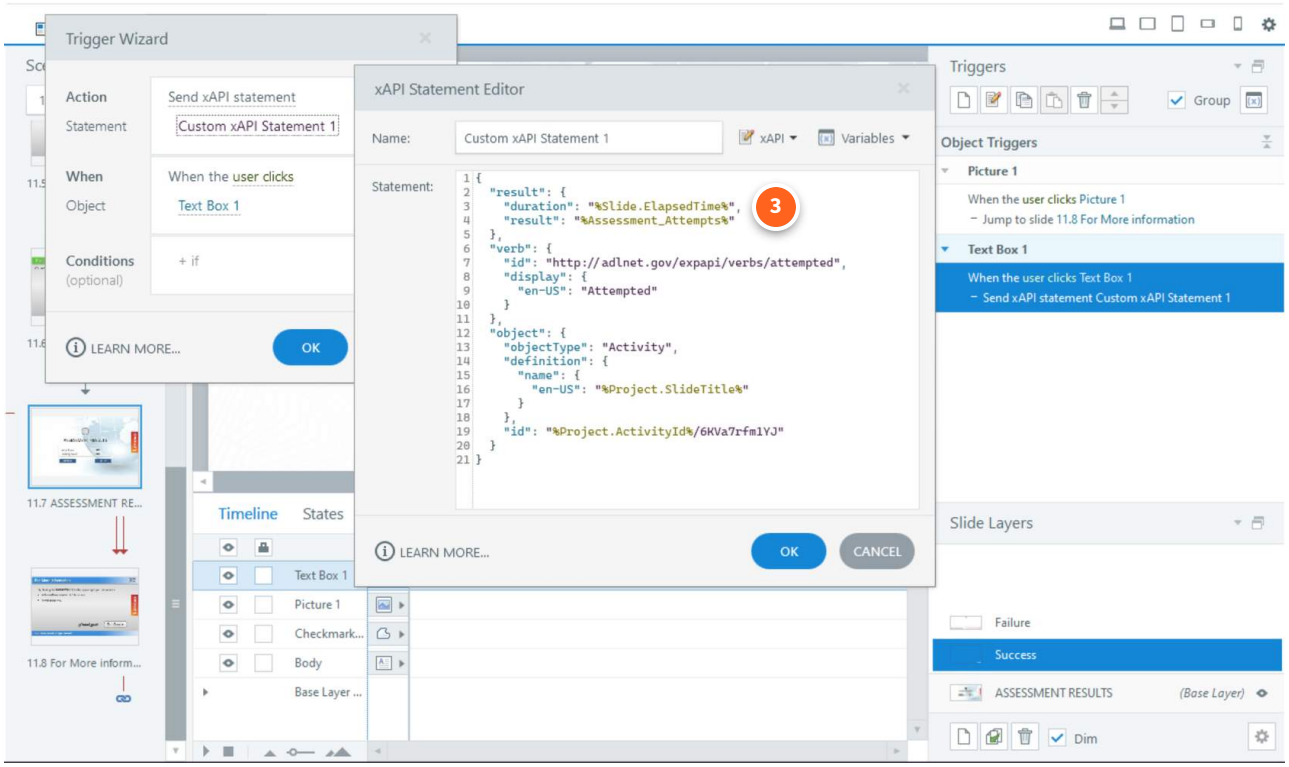


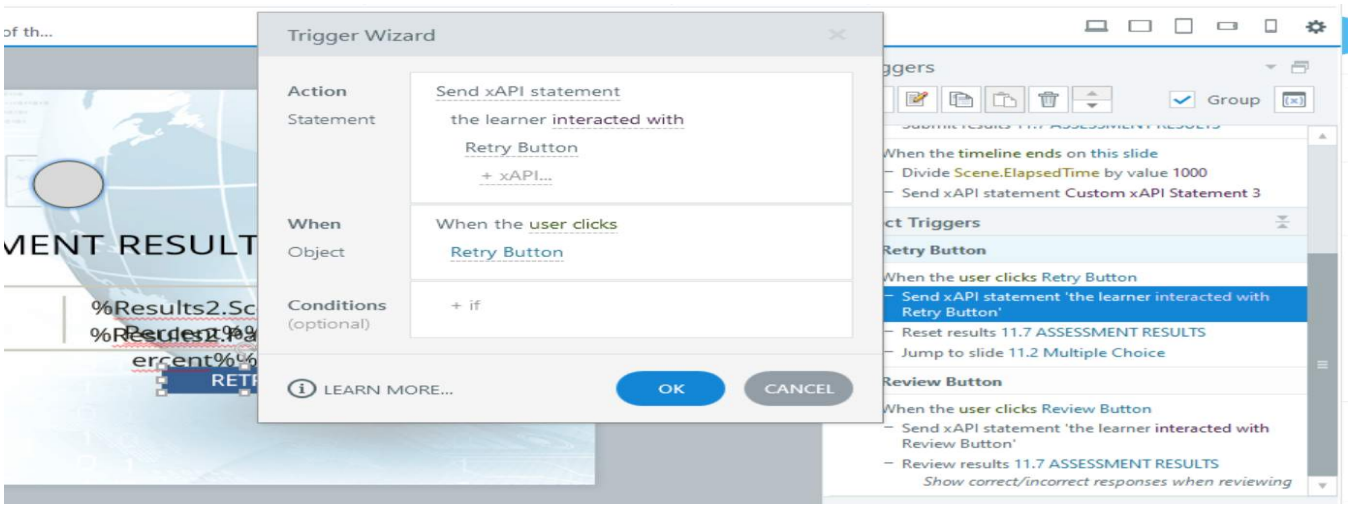


To begin our statement, we send a statement to the LRS that says that the learner has interacted with the slide -and we send this WHEN they click the Continue button -labelled here as Text Box 1 (bad name - this should be more specific!)



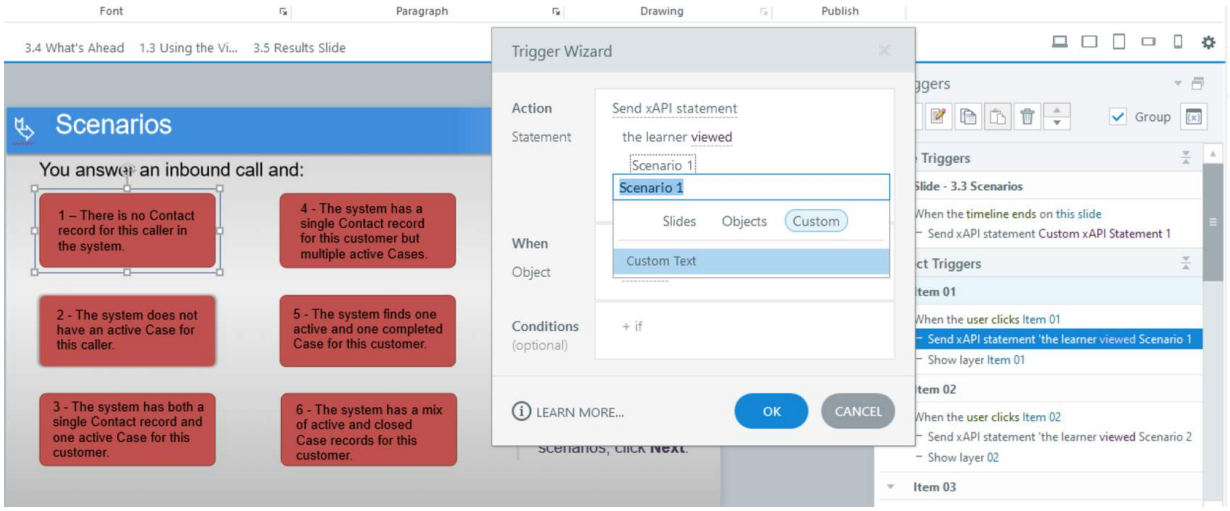
Set the statement to occur before you submit any results or jump to any other slides, but after you have updated any variables that need to be set.





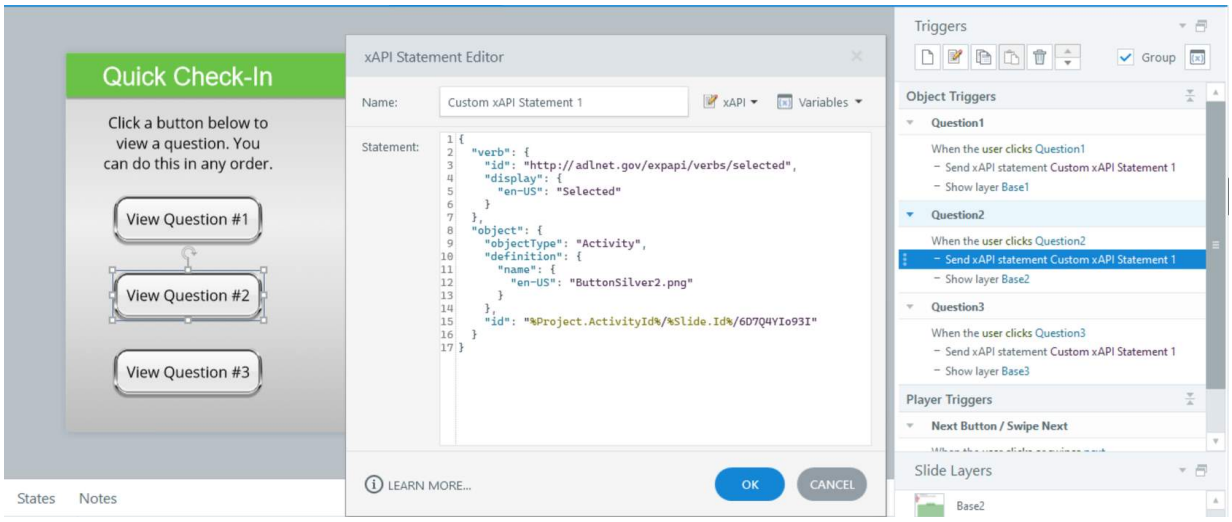
We have to ADD in a part - the RESULT. In this, the duration is set automatically, but we are adding in the "response" key:text pairing. We can write anything in the text field (as long as it's in "quotes". Here, I used the Variables pull down to select the Assessment_Attempts variable that I created. It increments a number every time the user presses the retry button from the base slide.

There may be some instances when we want to trigger an xAPI statment based on the button name, group name or something other than the slide name. Here are a few tips if you need/want to do this.



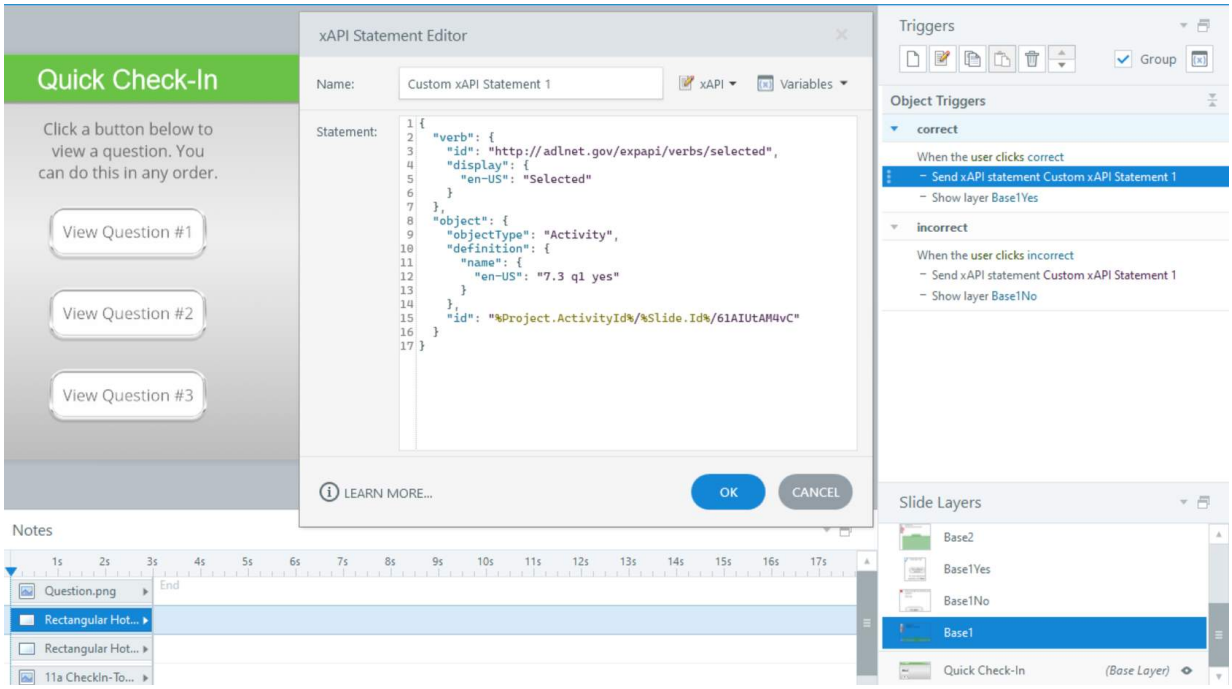
When your button is actually a group

Storyline will send a trigger on a group, and name it group, which is confusing. You can get around that by using the Custom tag (and typing in what you want to name the button) rather than clicking on the object itself.



When your button is named something funny

Storyline will send the statement with the name of the object itself. So, if your object is named "buttonsilver" then you will read it as "learner clicked button silver" --Do be unique and descriptive with your names in your timeline. If you cannot, then you can still change them in the xAPI statement, just change "buttonsilver.png" to something like "Check In Question 1".



When you have hotspots on multiple layers

In this example, we have a few questions that lead to slide layers. Each set of slide layers has a base and a correct and incorrect layer. To create the xapi statment that tells us whether the learner clicked on the correct hotspot, we only need to add 2 triggers onto each of the bottom layer (in this case called base) layer.

1 for when they click the correct hotspot, and one for when they do not. (do this for each 'base' layer)

Create each trigger with a viewed or Selected verb. in the Ojbect's "en-US" language add something like "slide.number q.number yes" or "7.3 q1 no" this should give you enough information to know which selection the learner chose.

Ensure that the xAPI statment is sent before you show any additional layers (such as the correct/incorrect layers)

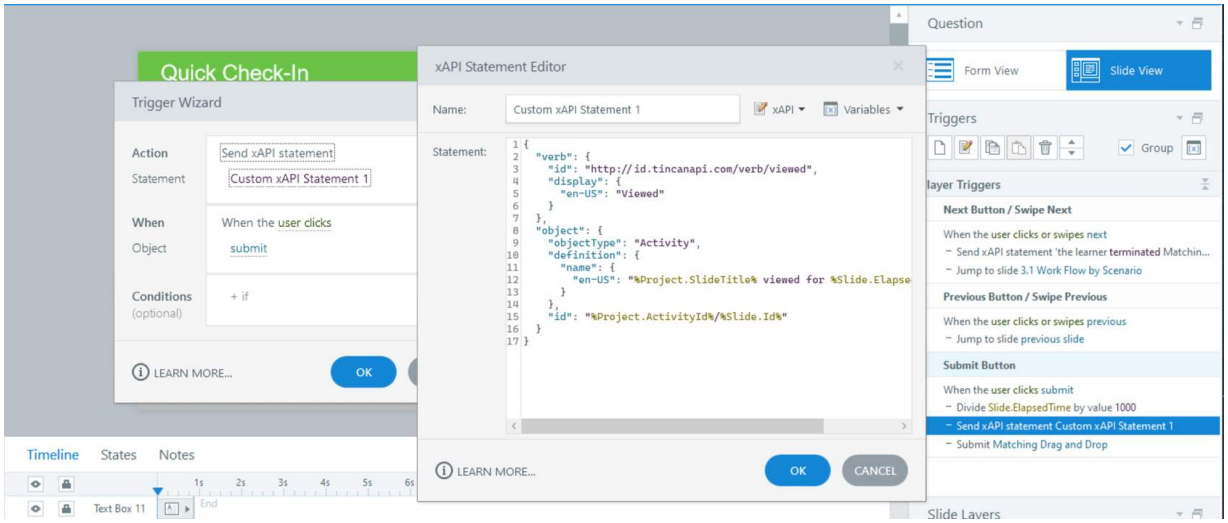
Triggers to notify of elapsed time (project, scene, slide)

ELAPSED TIME ON A SLIDE | PROJECT ELAPSED TIME | SCENE ELAPSED TIME

The trigger consists of 2 parts - 1 that divides the system variable Slide.elapstedTime by 1000 (to convert miliseconds to seconds) and a second one that sends the xAPI to the LRS.
For the xAPI trigger, start with the viewed verb - object (this slide) then edit the statement and add into the object "en-US" tag viewed for and then the slide.ElapstedTime variable seconds. Keep it all inside " ".

Note: The order of the triggers matters! Divide first, send xAPI second, THEN submit the interaction.

In this example, I chose to add this xAPI call onto the very last slide, so I set the call to run when the slide began, rather than on a button click or slide ending. You can choose what's best for your course.



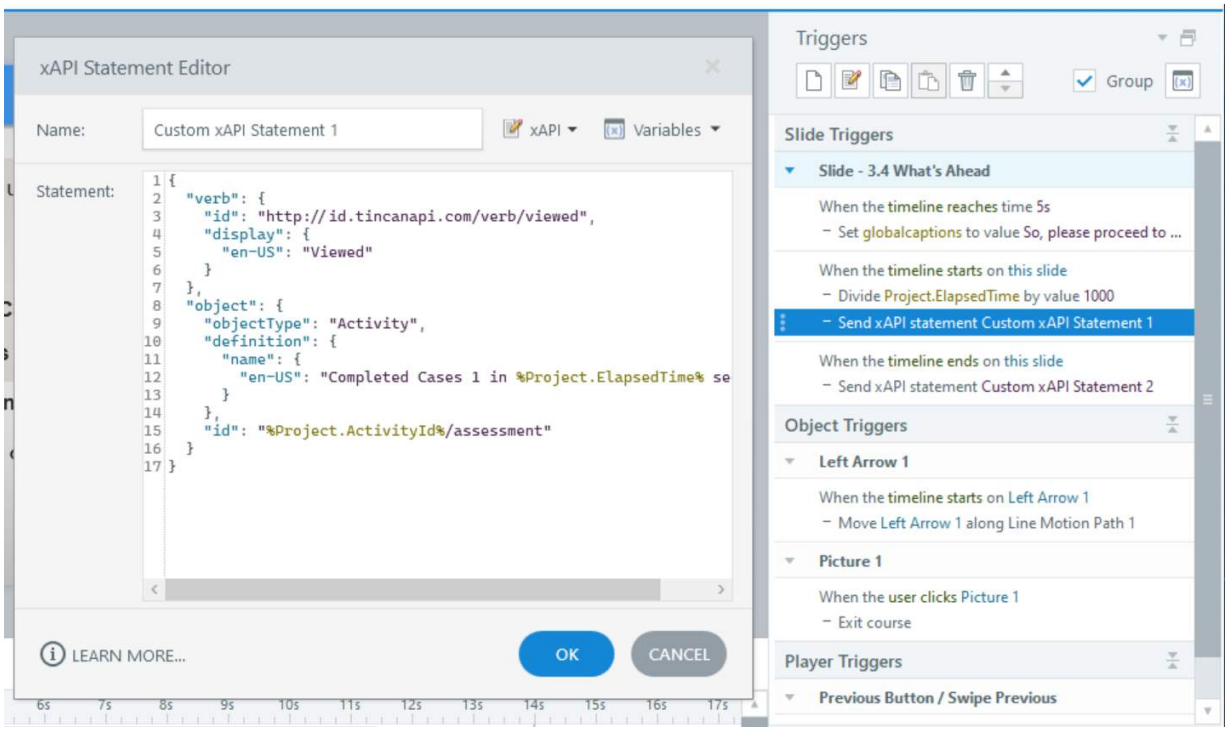
ELAPSED TIME ON A SLIDE | PROJECT ELAPSED TIME | SCENE ELAPSED TIME

Add the trigger to the last slide of your entire project.

The trigger consists of 2 parts - 1 that divides the system variable Scene.ElapsedTime by 1000 (to convert miliseconds to seconds) and a second one that sends the xAPI to the LRS.

For the xAPI trigger, start with the viewed verb - object (this slide) then edit the statement and add into the object "en-US" tag *Completed something in Scene.ElapstedTime variable seconds.*
Keep it all inside " ".
Change *something* to what the learner completed.

Note: The order of the triggers matters! Divide first, send xAPI second, THEN
The trigger consists of 2 parts - 1 that divides the system variable Project.ElapstedTime by 1000 (to convert miliseconds to seconds) and a second one that sends the xAPI to the LRS.

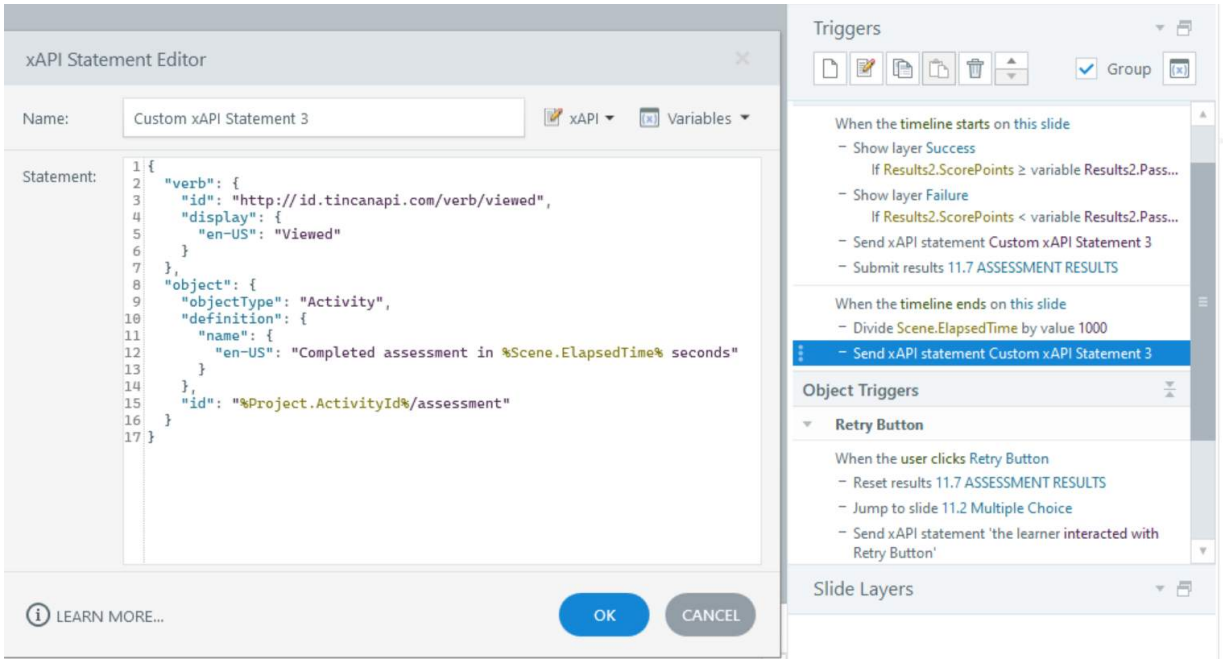


ELAPSED TIME ON A SLIDE	PROJECT ELAPSED TIME	SCENE ELAPSED TIME

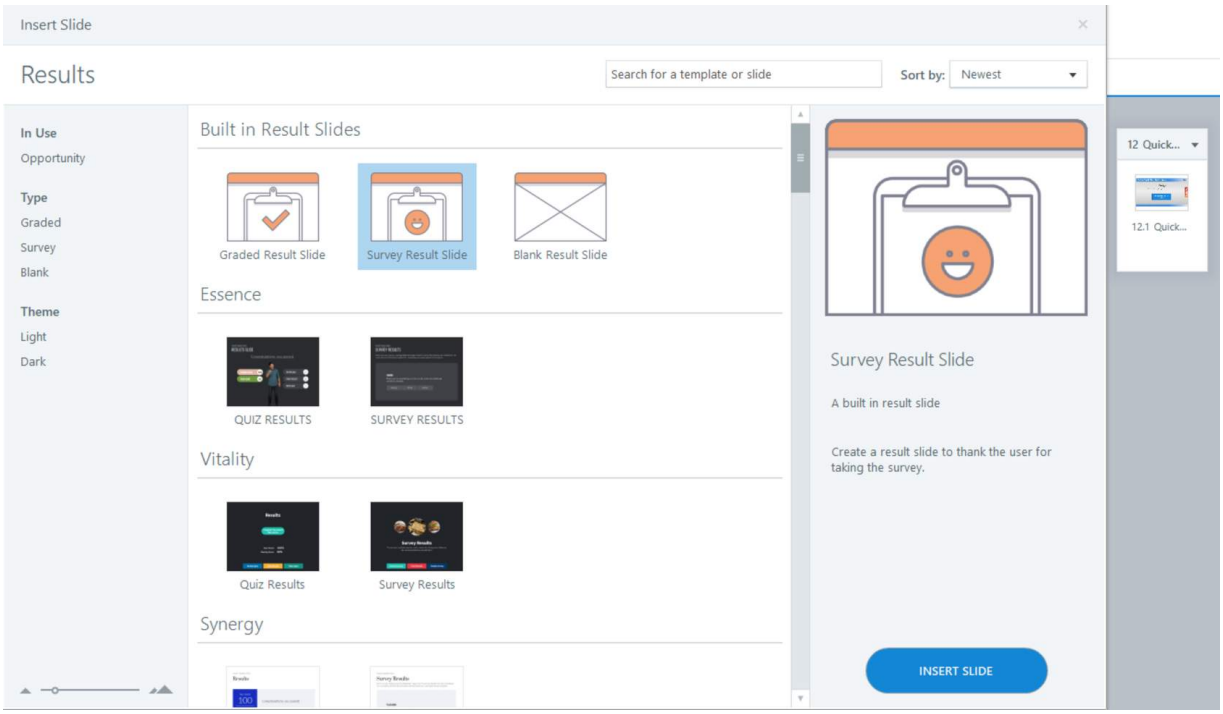
Add the trigger to the last slide of a scene that the learner can access.
The trigger consists of 2 parts - 1 that divides the system variable Scene.ElapsedTime by 1000 (to convert miliseconds to seconds) and a second one that sends the xAPI to the LRS.

For the xAPI trigger, start with the viewed verb - object (this slide) then edit the statement and add into the object "en-US" tag *Completed something in Scene.ElapstedTime variable seconds.*
Keep it all inside " ".
Change *something* to what the learner completed.

Note: The order of the triggers matters! Divide first, send xAPI second, THEN submit the interaction.


xAPI Statement Editor
Name:
Custom xAPI Statement 3
xAPI
Variables
Statement:
{
"verb": {
"id": "http://id.tincanapi.com/verb/viewed",
"display": {
"en-US": "Viewed"
}
},
"object": {
"objectType": "Activity",
"definition": {
"name": {
"en-US": "Completed assessment in %Scene.ElapsedTime% seconds"
}
},
"id": "%Project.ActivityId%/assessment"
}
}
LEARN MORE...
OK
CANCEL
Triggers
Group
When the timeline starts on this slide
Show layer Success
If Results2.ScorePoints ≥ variable Results2.Pass...
Show layer Failure
If Results2.ScorePoints < variable Results2.Pass...
Send xAPI statement Custom xAPI Statement 3
Submit results 11.7 ASSESSMENT RESULTS
When the timeline ends on this slide
Divide Scene.ElapsedTime by value 1000
Send xAPI statement Custom xAPI Statement 3
Object Triggers
Retry Button
When the user clicks Retry Button
Reset results 11.7 ASSESSMENT RESULTS
Jump to slide 11.2 Multiple Choice
Send xAPI statement 'the learner interacted with Retry Button'
Slide Layers

Tracking Quick Check in's (Non-graded assessments)

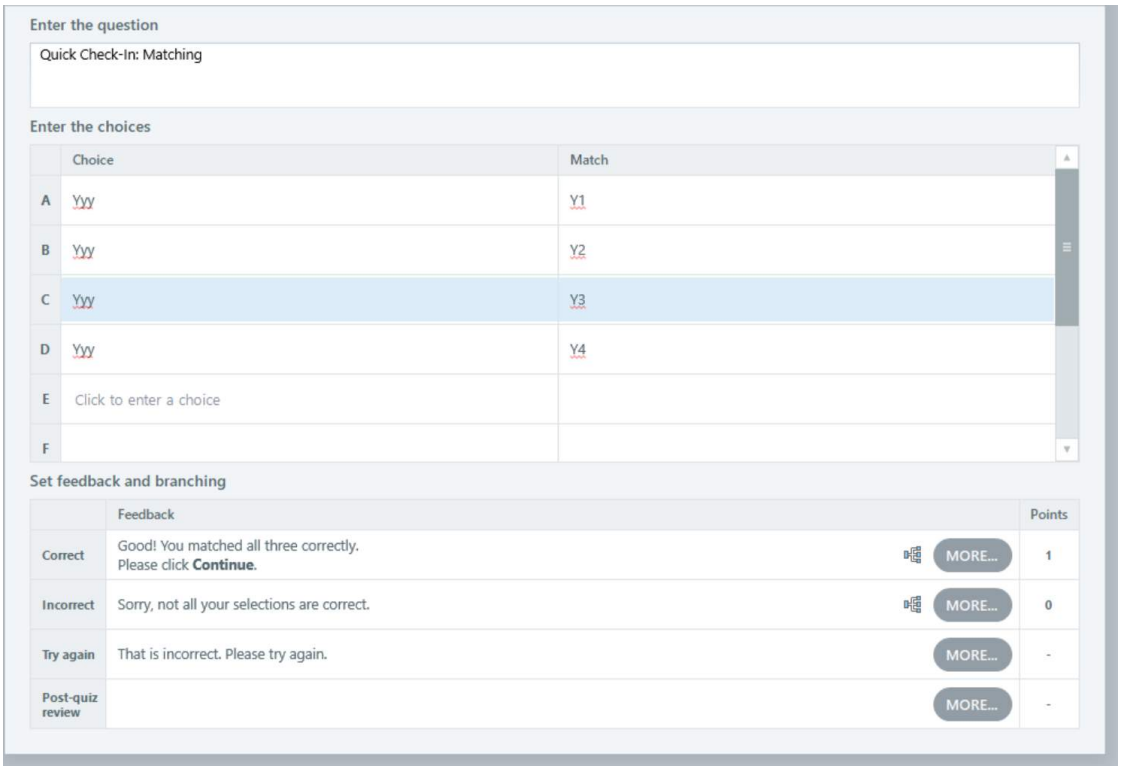


Storyline will not perform any automatic reporting on any questions slides that are not graded. You will need to have a point system for all of them, and point them to a hidden results slide.

Begin by creating a survey (blank / default) results slide and adding it somewhere where it won't be seen, like a new Scene.

Step 1

Add some points



The first thing you need to do is add a grade into the Form View. Even if it's just in 1 point. Don't worry, the learner will not see this, so as long as there is a number in there, it will work. In your design tab, point the results to the new survey results slide you just created.

Step 2

All Done

Storyline will now inform you (automatically) if the learner passes your question or fails it.

Lesson 3 of 6

Links to test LRS/LMS for you to play with

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Veracity LRS

LRS for use with Talent LMS or other hosting site such as web publishing, AWS, etc.

VERACITY LRS

Scorm Cloud

You can upload your file here (LMS)AND record/ read your xAPI data (LRS)

SCORM CLOUD

Talent LMS

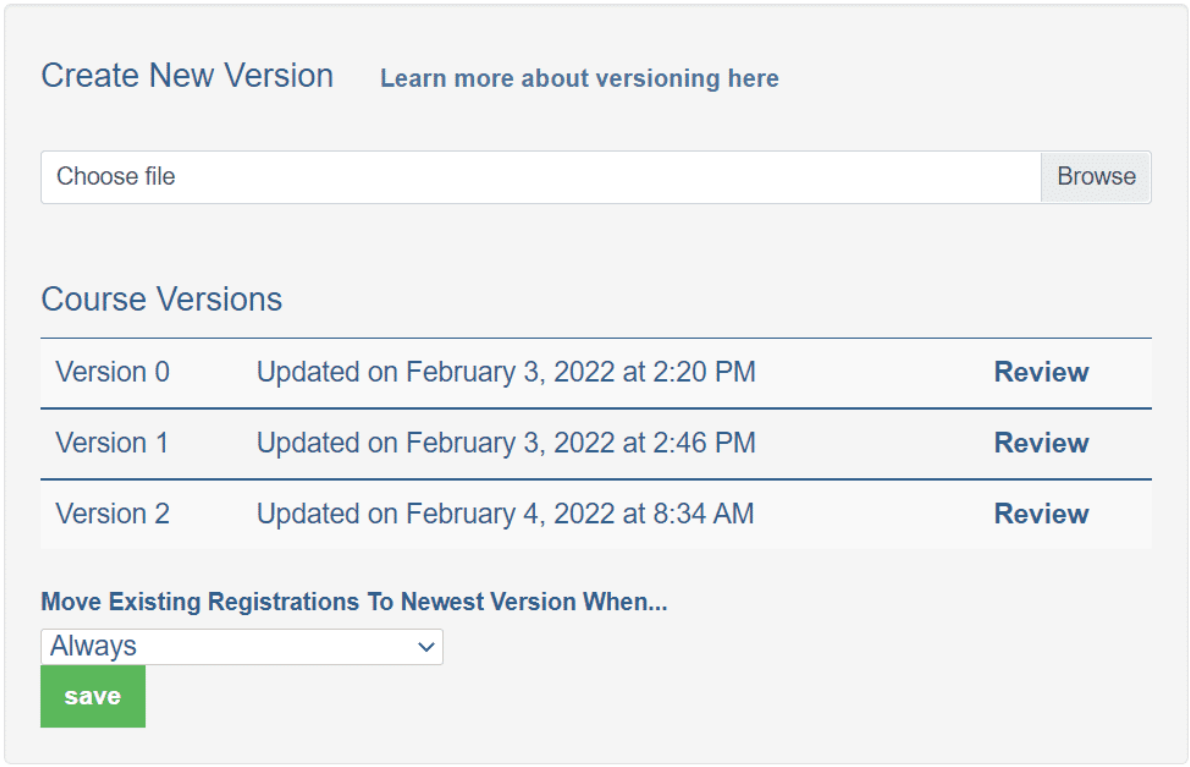
LMS (Free for up to 10 courses / 5 users)

TALENT LMS

Watershed LRS

Get your free account and test other features that some other LRS's don't give you.

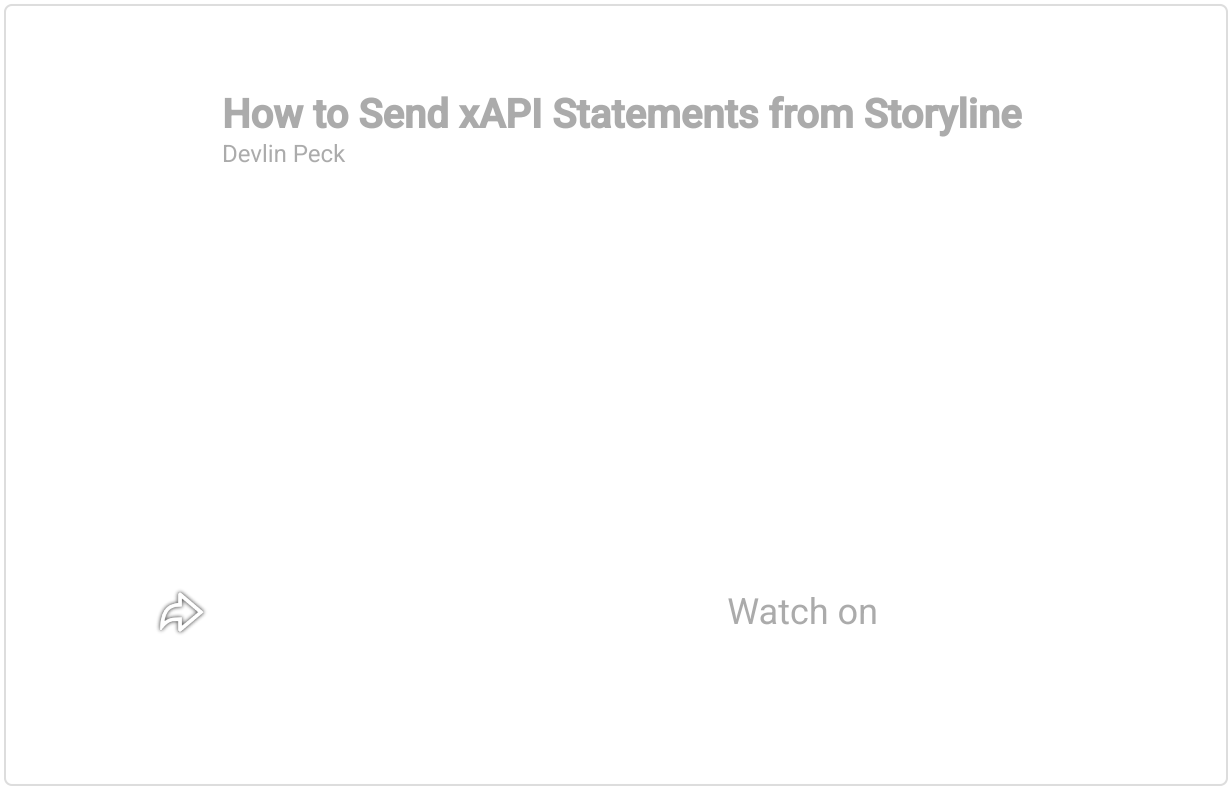
WATERSHED



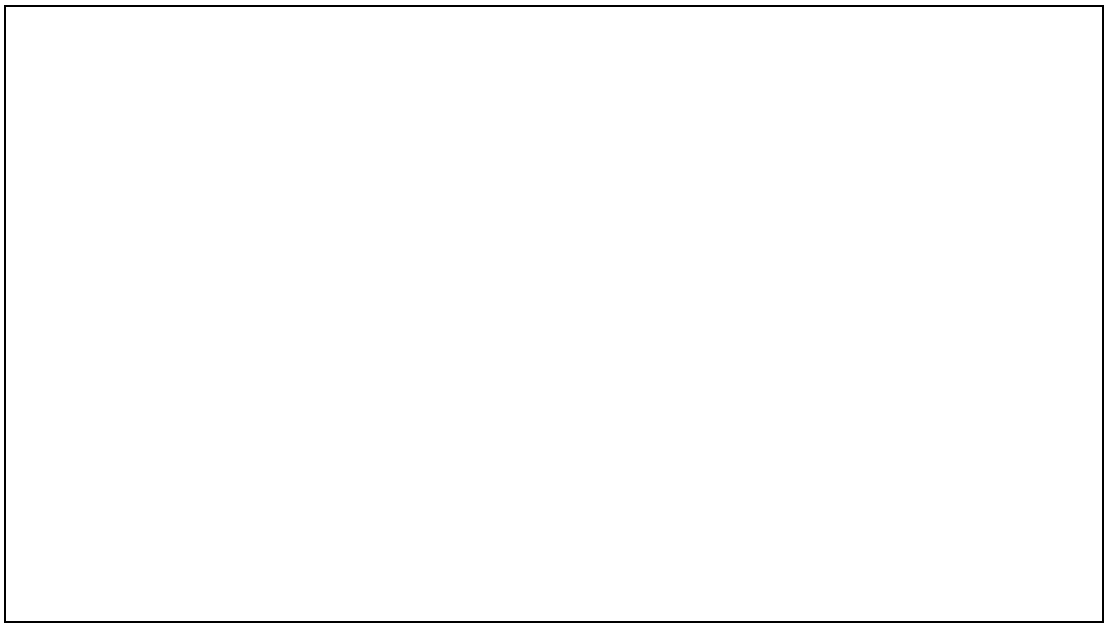
One note about Scorm Cloud - when you upload many different versions - do click the Always button in the version history section or when you go to test it, you may not be reviewing the latest version of your course... (Don't be me....)

Youtube video tutorials to help you

JG Jennifer Gupta



YOUTUBE



Creating xAPI Statements in Articulate Storyline [Part 1]

VIEW ON YOUTUBE >

YOUTUBE

How to Send xAPI Statements from Articulate St

Learning Dojo

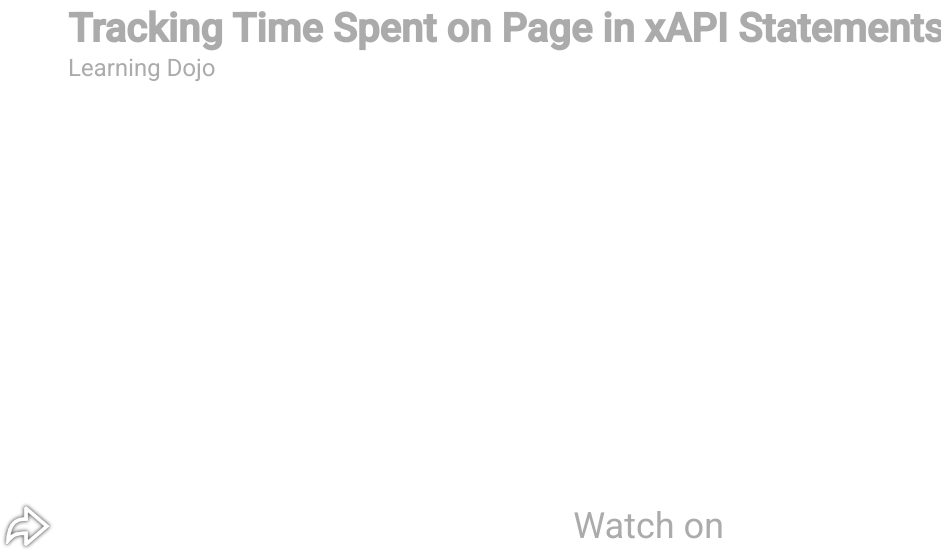
Watch on

Creating xAPI Statements in Articulate Storyline [Part 2]

In my last video, I talked about the basics of Articulate Storyline 360's new xAPI trigger feature. This new update allows you to trigger custom xAPI stateme...

VIEW ON YOUTUBE >

YOUTUBE



Tracking Time Spent on Page in xAPI Statements [Using Storyline]

Ever wonder how much time people are spending within an eLearning course? The new elapsed time variable allows us to see how much time someone spends on a pa...

VIEW ON YOUTUBE >

Lesson 5 of 6

Publish Settings

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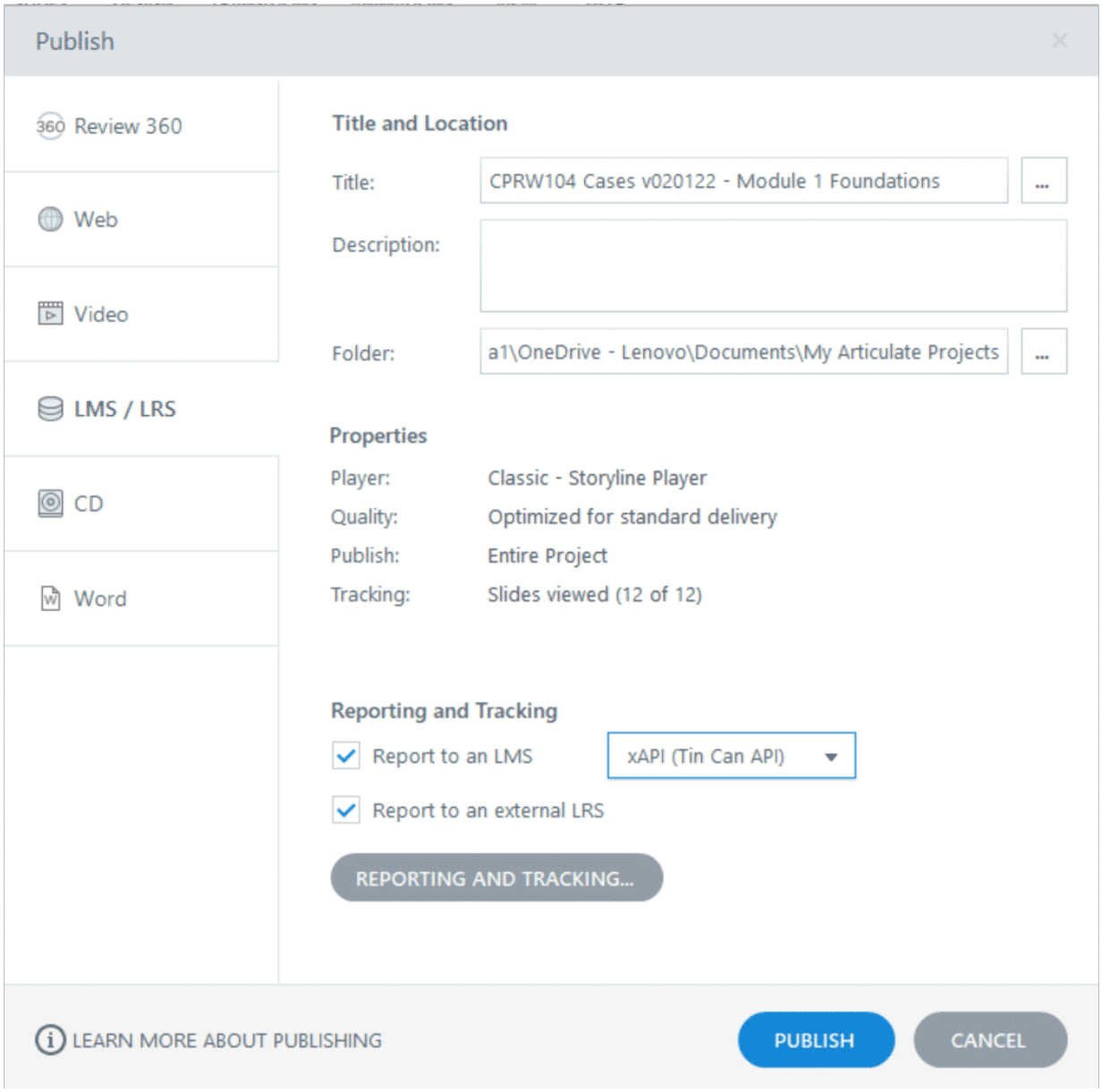
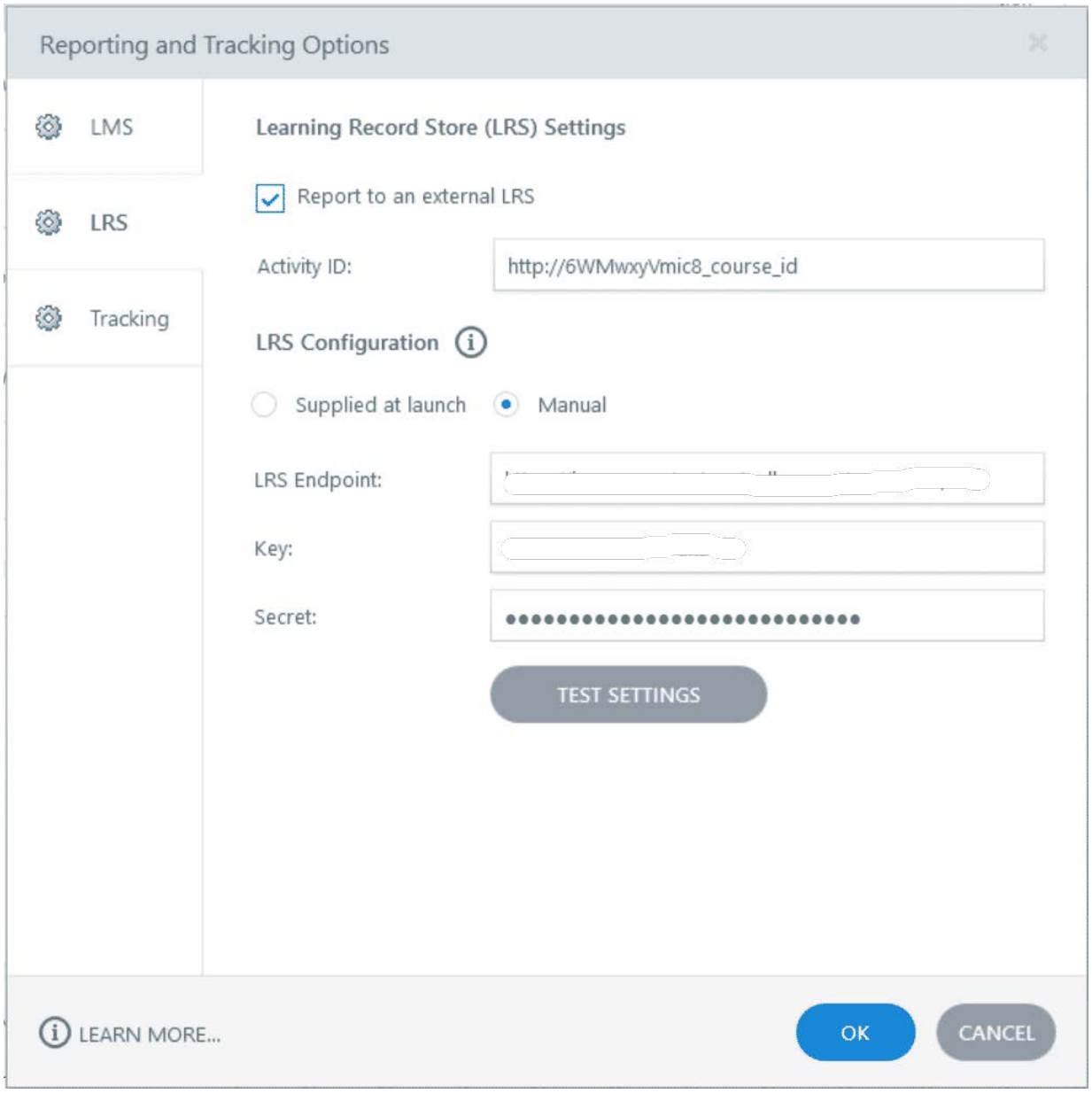

Publish
Review 360
Web
Video
LMS / LRS
CD
Word
Title and Location
Title:
CPRW104 Cases v020122 - Module 1 Foundations
...
Description:
Folder:
a1\OneDrive - Lenovo\Documents\My Articulate Projects
...
Properties
Player:
Classic - Storyline Player
Quality:
Optimized for standard delivery
Publish:
Entire Project
Tracking:
Slides viewed (12 of 12)
Reporting and Tracking
Report to an LMS
xAPI (Tin Can API)
Report to an external LRS
REPORTING AND TRACKING...
LEARN MORE ABOUT PUBLISHING
PUBLISH
CANCEL



Settings

/*Removed for safety*/

Lesson 6 of 6

Troubleshooting issues

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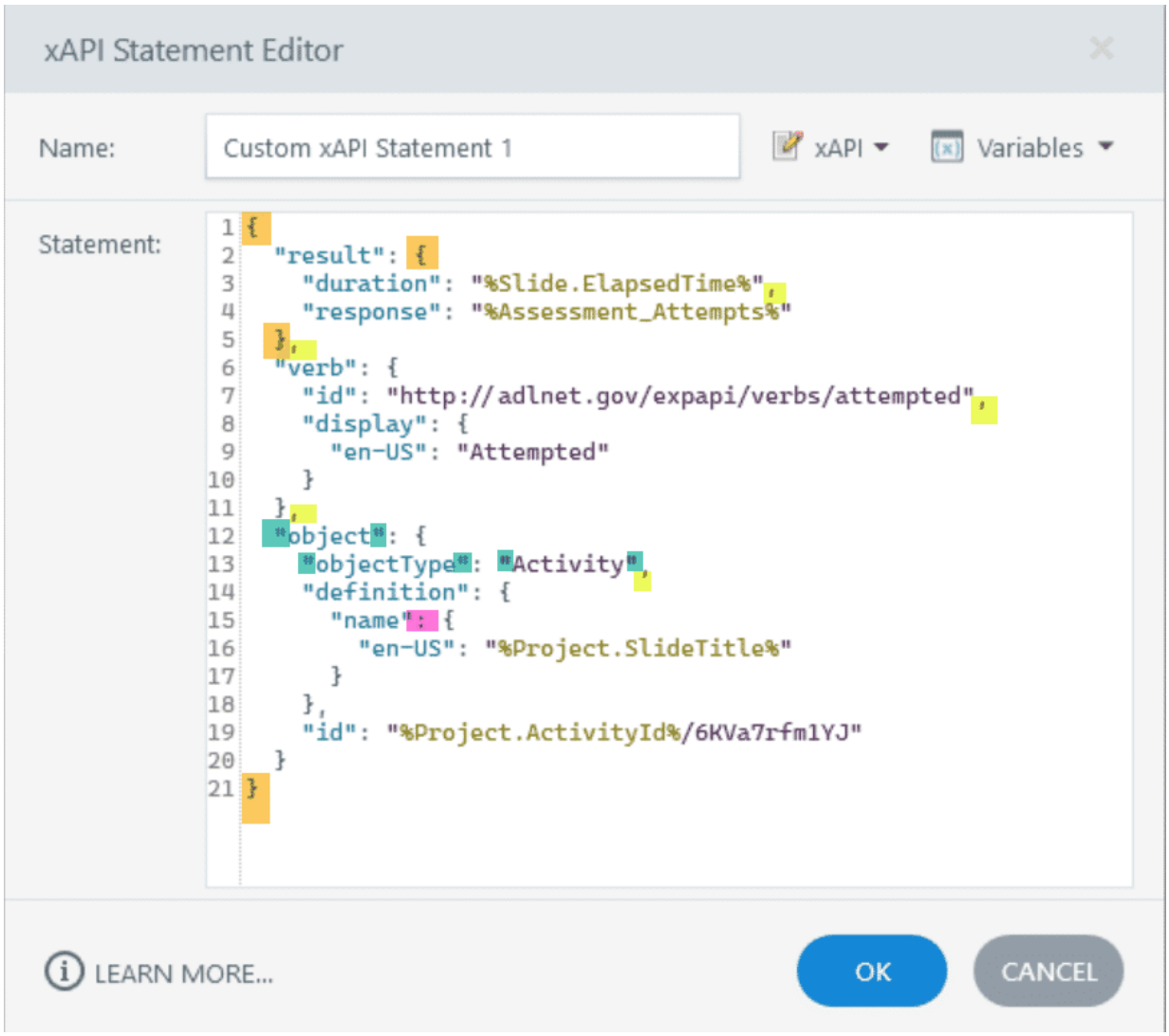

Things to watch out for in your xAPI statements

(Not all instances of the below are highlighted in the picture)

1. Every open curly bracket MUST have a closing curly bracket
2. Every line or section that has something after it MUST end in a comma
3. Every key word pair must have a : in between them. For example "response": "%Assessment_Attempts%"
4. Every Key and Word must have " around them. "response" : "answer"