USER Method Planning Template

1. UNDERSTAND

a. Identify problem: Web maps can be great communication tools that can help contextualize complex spatial relationships. Graduate students could benefit from learning how to create a basic web map to help support their future projects.

b. Analyze Scenario:

Learner	*Characterize:* Any graduate (or undergraduate) student can attend, preference would be for those who have an interest in Geographic Information Systems (GIS), geography, or maps in general. No previous specialized software knowledge required.
	Confront: Prior knowledge in GIS or geospatial data is not required. A very basic explanation of GIS will need to be covered during the session, as well as so will need to spend a few minutes on the ArcGIS Online
Context	*Characterize:* The lesson will be held in CRX 220 where there is a large visualization wall, side screens broadcasting the same image, and an adjustable podium with functioning mic. It is recommended for students to bring their own laptops in order for them to follow along with steps that will be shown on the larger screens, and have one of the following browsers installed: Chrome, Edge, IE 11, Firefox, or Safari. These are compatible with ArcGIS Online (AGOL), which we will be using in this lesson. Students will also be asked to create a public AGOL account (https://www.arcgis.com/home/index.html), as this will allow them to create their own web map. If a student cannot/will not create an account or have their own laptops (with browser), they can also follow along by pairing up with another participant or simply by watching the instructor.
	Confront: Ideally, communicate to learners one week beforehand to bring their laptops with a compatible browser to the session. In the interest of time, also see if they can create a public AGOL account prior to the session.
Content	*Characterize:* The lesson will introduce learners to the basics of GIS, show them where to find open geospatial data, and steps needed in AGOL to create a basic map of their downloaded data.
	Confront: Make sure to go over each step carefully and ask for feedback throughout the lesson so as not to lose participants at an earlier step. Just in case, prepare some data beforehand for learners who may not be able to download their own datasets.
Educator	*Characterize:* Speak loudly and clearly about the benefits of GIS and web mapping. Learners will need to understand early why this is useful to them.
	Confront: Demonstrate with the use of an example. When learners are asked to follow along with the instructor, do not hurry through basic steps to make sure everyone is following along.

2. STRUCTURE

c. Create targets	*Goal(s):* Learners will gain greater familiarity and appreciation for GIS.
	Objective(s): Learners will come away from the lesson knowing how to find and download geospatial data and display it in a web map.

		Outcome(s): Attendees will leave the session having searched for and downloaded geospatial data, created an AGOL account, imported their data into AGOL, and created a basic map displaying their data.
d.	Involve and Extend	*Involve:* Get students to actively choose their own dataset from the City of Ottawa Open Data portal. Show them how to create a public AGOL account and what is required to create a basic web map showing their data.
		Extend: Provide students with useful resources should they desire to learn more about mapping data in AGOL.
3. ENGAGE		
e.	Develop materials	*Object(s):* Design a PDF lesson plan focused on learning objectives and with clear instructions that can be followed by any academic librarian. Design a PowerPoint presentation that can "set the stage" and that will also contain links to the necessary resources that will be explored throughout the learning lesson.
		Message: Broadly, GIS is being utilized in a growing number of disciplines and can be used to great effect as a communication tool. More specifically, AGOL is the most broadly used web mapping platform available and is constantly expanding in its functionality.
f.	Deliver Instruction	*Implement:* Session is meant to be delivered to a specific class and audience.
		Capture & Sustain: Capture the learner attention using visualizations such as web maps and high-resolution images. Have a professional but relaxed tone throughout. Offer a bit of time for students to work individually (e.g. when finding a dataset that appeals to them) to break up having learners having to listen to instruction for the entire lesson. Make it clear that questions are welcome at any time throughout the session.
4. REFLECT		
g.	Assess Impact	*Formative:* Monitor learners throughout the lesson to make sure they are comfortable with the steps they are doing. Observe body language and solicit feedback throughout the lesson to make sure everyone is following along.
		Summative: Learners will be asked to share their custom web maps on the course discussion board. At the end of the lesson, ask the learners (verbally) if there was anything they might have wished to have spent additional time on or done differently.
h.	Revise and Reuse	*Revise:* After taken learner feedback in consideration, adjust the lesson to improve efficiency.
		Reuse: Archive the presentation, the lesson plan, and any other instructional material used in the lesson for future use.

Adapted from *Reflective Teaching, Effective Learning* by Char Booth (Chicago: American Library Association, 2011).