impact

University of Idaho Extension programs that are making a difference in Idaho.

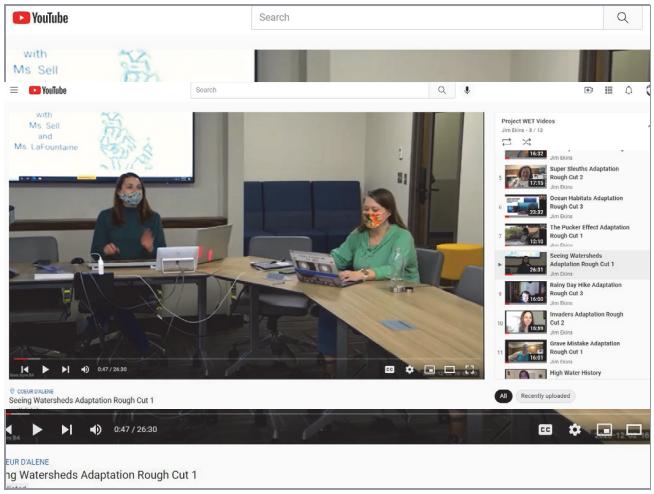
UI Extension Water Outreach develops online and home-ready learning activities

AT A GLANCE

When COVID-19 closed schools, teachers and parents needed hands-on learning activities, STAT. UI Extension Water Outreach program jumped into high gear to develop distance-ready curriculum.

The Situation

In March of 2020, the COVID-19 pandemic prompted Idaho schools to close their doors and continue with online teaching. Nobody was really prepared for the sudden shift to learning at a distance and home-based education. A survey of more than 600 educators conducted by the national Project WET program assessed distance learning experiences and revealed two distinct needs to support science education. First was developing inquiry-driven lessons to decrease screen time and encourage hands-on learning. Second was to ensure that all students could access the lessons regardless of technological access. Teachers, newly homeschooling parents and youth needed accessible, impactful active-learning opportunities. Another serious complication from schools being suddenly off-limits is that preservice teachers (advanced students in the College of Education, Health and Human Sciences) were in dire need of quality practicum experiences to hone their teaching skills. These students rely on their methods course and practicum to provide them with an opportunity to design and deliver a lesson before completing their student teaching internship within the next academic year. And everyone needed the resources fast.



Teaching at a distance requires innovative curriculum and practices, like hands-on multimedia activities for youth.

Our Response

With these needs in mind, the University of Idaho Extension Water Outreach program sought expert partnerships to develop innovative active learning opportunities from existing resources. Within days of the shutdown, Water Outreach fast-tracked online access to an advanced draft of a peer-reviewed 4-H Wildlife and Water Habitats Curriculum (uidaho.edu/extension/idah20/resources). Then, Water Outreach lead a curriculum development project with University of Idaho's Department of Curriculum and Instruction, and the national Project WET (Water Education Today) office to reimagine up to a dozen Project WET learning activities for use in a distance teaching and learning environment, as an academic service-learning

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project for a 400-level secondary science education methods class. Because the Curriculum and Instruction students needed clinical experience in teaching and learning, the partners developed an academic service-learning project for those students. It was a win-win situation for the project partners; an example of turning lemons to lemonade.

Program Outcomes

The project underlying this partnership involved three phases: hybrid Project WET certification workshop, classic Project WET activity redesign and pilot delivery of the remote Project WET activity. The hybrid workshop prepared the preservice teachers to lead Project WET activities and introduced virtual redesigns of five classic activities to inspire their work. The workshop also allowed the preservice teachers to select which eight classic activities to redesign and brainstorm potential solutions to participation barriers. During the activity redesign phase, preservice teachers focused on exploring quality distance learning design, addressing distance learning barriers and effectively engaging students in remote learning environments. Ten preservice teachers worked in pairs of two, using the following three guidelines to help them apply what they learned:

1. Usability: other teachers can learn how to conduct the activity remotely
2. Autonomy: learners need little to no supervision or outside guidance to complete the activity
3. Technology: the activity accounts for learners with and without access to broadband technology or specialty supplies

The pilot delivery phase required the teacher candidates to offer the eight redesigned activities to an authentic audience. This component took the place of the traditional classroom-delivered lesson typically experienced in the clinical practicum. It also allowed the preservice teachers and mentors to observe and document each activity for later debriefing to refine the designs further. Edited versions of these deliveries also provide documentation for the Project WET facilitators to use in future training workshops, highlighting how other educators should use and apply the redesigned activities.

The Future

The resources we developed, and the knowledge we've gained into online content delivery, will be durable and usable into the future. All the resources are easy to update as technology and knowledge improves.

Cooperators and Co-Sponsors

Idaho Project WET

University of Idaho Department of Curriculum and Instruction

University of Idaho Center for Excellence in Teaching and Learning

FOR MORE INFORMATION

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