InTeGrate Faculty Stories

InTeGrate Facilitates Real-World Examples and Interdisciplinary Collaborations in Class

Lia Wetzstein & Katie Kovacich

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The perspective summarized in this brief is from a faculty member who teaches teachers and participated in the InTeGrate Implementation Program (IP). The experience led her to create more content in her course which contained real-world scientific problems and data. As someone who was already using multiple forms of assessment and a collaborative teaching pedagogy, she felt the material fit well with her class.

INFLUENCE ON TEACHING AND LEARNING

This non-geoscience faculty member integrates science into her education classes, and she found the InTeGrate material useful for providing real-world scientific examples. InTeGrate's focus on active learning aligned with her classroom style, so she felt the material fit "perfectly". She used the materials in a specific class, and said it increased the "application of real-world events" to what she was teaching. She further described her classroom changes after participating in the InTeGrate IP, to convey the benefit of using more real-world science examples. She said:

[InTeGrate] really provided that connection.

Because I like to try to make what we do in that class really, real-world, and those things that are impacting how we live today. So, it helped to expand in that particular area.

She felt those changes to her curriculum helped increase student interest within the classroom. As a faculty member who teaches outside the sciences, the IP experience also allowed her to integrate more science and authentic data into her classes, expanding the interdisciplinary focus. In a discussion of the guiding principles that InTeGrate materials were created from, she said the InTeGrate material helped provide an "interdisciplinary look at learning". She saw a potential to use the InTeGrate material with future STEM education courses, and further described these influences on her classes:

One thing is that it really has provided me a way of looking at the science component, and then seeing an integration with [my discipline]...InTeGrate is implemented as being real-world – being things that are happening today. And that brings up the level of interest in what's going on in the classroom. And using authentic data versus data that isn't authentic.

INFLUENCE ON INTERDISCIPLINARY COLLABORATIONS

The IP program also led to more discussion and collaboration across the liberal arts and science disciplines. She described that:

We've started this more holistic conversation, about the integration of the overall topic areas in disciplinary teaching . . . and we hope to keep that going, as a way for us [to continue] learning from one another. And more importantly, as a way of being able to integrate a more interdisciplinary approach into what we teach.

Building on these conversations, an interdisciplinary team was formed to create more interdisciplinary curriculum and courses, and to continue to learn from one another. The team is made up of faculty from multiple disciplines and colleges, and has a "strong connection" to the IP program. The interdisciplinary InTeGrate modules were also shared with local teachers in the community, as this is also relevant to K-12 STEM educators trying to teach about science and society.

For this teacher of teachers, the IP experience helped provide more science examples, use of authentic data and an interdisciplinary focus that engaged her students. She felt the changes made the material more relevant to her students and also allowed them to see the interdisciplinary influences impacting environmental, real-world problems.