

Journaling in Biology

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Context: In & out of class; Introduction to Biology

Keywords: first-year experience, journaling

Student Activity Time: 1-2 hours

Students reflect on their class activities and experiences in a journaling activity.

Introducing the Reflection Activity

In the introduction to biology sequence, students were invited to reflect on weekly assignments and activities in a course journal. In the class, students were provided reflection prompts related to the course content and experiences and wrote responses in and out of class. The purpose of this activity is to assist students in becoming better scientists by recording and reflecting on class content in a formal way.

Students were provided with a journal guide at the beginning of the quarter and are provided prompts after various activities to complete in class and outside of class. In order to set expectations and guide students, the educator provided copies of previous journal entries on the course management website. These guided reflections allowed students to express their learning, both in text and illustrations. They were told to record their thoughts, observations, and ideas on specific topics; the resulting journal is a tangible artifact of what each student gained from the class. Not only did students reflect on the course content on a weekly basis, but the journal also became a practical study guide throughout the unit. In order to earn full credit, students were required to write journal entries both in class, and on their own time. The required topics were graded during the journal checks at four points in the quarter.

The outcomes for this activity varied for students, but primarily assisted students with learning and recalling course content, particularly identification of various biological species. The educator also reported that the journal helped students to create a sense of mastery of the course content.

Recreating the Reflection Activity

	Description
1	Distribute and describe the journaling assignment at the beginning of the quarter or unit.
2	Provide students with access to sample journals or journal entries.
3	Assign reflection prompts throughout the quarter or unit.
4	Grade journals four times per quarter or unit for content and effort.

In the words of the Educator: Tips and Inspiration

Don't overthink it—just write. Just have the students write something, and have fun with it. Students begin to synthesize material and explain it when the assignment is not a simple, rote response. Some students will do the bare minimum, but many will write a lot more, reflecting their learning of the class material.

Introduce the concept of journaling. I have copies of my own journals, and I post them online. The first journal check is only worth ten points I'm much less concerned about formatting for the first grade. I tell them "these are the minimum things that need to be in your journal" and to focus on putting their thoughts and ideas down.

Focus on developing professionals. By connecting journaling to professional practice, sometimes you get a student who takes it very seriously--and that's really cool. Hopefully our students get to a point where they're independent professionals. How do you do that without reflecting? It's not like we're following a prescribed path throughout our careers, so practicing reflection is one way to help students prepare for the long term.

What was the inspiration for the reflection activity? I was handing out lab assignments, students would complete them, and turn them in. One day I realized that it was just busywork. If I could introduce them to journaling which I found is a very valuable skill in life, then they would get more out of the course. I taught a class in Belize, and field journals are common. It was the first time I did it, and I've used it ever since.