

# Reflection on Intellectual Development

**Educator:** Jennifer O'Connor, Associate Professor, Biology & Biological Engineering

**Context:** In class and out of class; Cancer biology

**Keywords:** educator feedback, intellectual development

**Student Activity Time:** 15-20 minutes in class; 1-2 hours outside of class

*On the first and last day of class, students reflected on their intellectual development on the Perry Scale.*

## Introducing the Reflection Activity

In an elective cancer biology class, sophomore, junior, and senior students reflected on their learning, specifically related to intellectual development, in the course through placing themselves on the Perry scale of intellectual development. The purpose of this reflection activity was to have students think about how they learn in order to better guide them through their future.

On the first day of the course, the educator engaged students in a course work related written assignment and a reflection written assignment. To prepare students for their engagement in the reflection part of the assignment, the educator discussed the Perry scale, which is an intellectual development scale. In this conversation, the educator emphasized that a goal of higher education was to prepare students to be learners outside of school, and to support their intellectual development. Then the educator introduced the reflection activity, asking the students to respond to two questions: (1) define cancer and be specific about what molecules or cells or processes occur, and (2) place yourself on the Perry scale of intellectual development and provide evidence based on your own behaviors of why you placed yourself at this level. After students submitted this assignment, the educator graded it using a credit/no credit approach. At the end of the course, students returned to this assignment and re-engaged in the activity—assessing their ideas about cancer biology and their intellectual development. Students put the assignment in their course portfolio.

In terms of outcomes, there was potential for students to develop as learners and learn how to learn. Additionally, it provided the educator valuable information about students—where they were and where they thought they were. Even further, it can change the educator's view of students.

## Recreating the Reflection Activity

|   | Description   |
|---|---|
| 1 | Introduce the concept of intellectual development and the Perry Model.          |
| 2 | Assign the assignment, including the reflection activity.                       |
| 3 | Grade the reflection activity using a credit/no credit approach.                |
| 4 | Assign the students to re-do the assignment, including the reflection activity. |

## In the words of the Educator: Tips and Inspiration

*Be aware that this type of activity is new to students.* I don't think it's normal to teach about the Perry scale and intellectual development in the class. So, it can be challenging to get students to think about their learning as opposed to just the content.

*Be aware that it takes time out of the first day of class.* You have to be willing to devote some class time to the activity.

*What was the inspiration for the reflection activity?* Students' intellectual development was one of my primary areas of research when I started teaching. I wanted to assess the intellectual development of our students, specifically looking at the development throughout their undergraduate years.