Activity

2

Reflecting on Your Felder's Learning Style Index

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Context: In-Class; Intro to Materials Science
Keywords: learning style
Student Activity Time: 1-3 hours outside of class

Students reflected on their Felder's Learning Style scores.

Introducing the Reflection Activity

In an introduction to materials engineering course, students engaged in three short, graded, written reflection assignments that were intended to help them reflect on their own learning and how they construct knowledge around the topic of materials engineering.

This field guide entry focuses on the first reflection activity students were presented with—reflecting on their Felder's Learning Style Inventory Score. In a formal written reflection assignment, students spend a few hours reflecting on their Felder's Learning Style Inventory Score prompted by three questions:

1. How do you react to your Felder's Learning Style Inventory scores?
2. After seeing the Felder scores for the entire class, what are your thoughts?
3. Why am I having you write this silly thing?

Alternatively students may choose to answer different questions, such as: when have you felt whole as a human being? What does it mean to be whole? Have you had this experience as a student here at Cal Poly? Why or why not? What does being whole make possible?

Once students reflected on their Felder's Learning Style Inventory, the educator graded the reflection using a liberal approach to grading—if the student completed the reflection and put a good faith effort into the reflection, the student received full credit. The educator provided little to no feedback on the students' individual reflections, rather after he graded and handed back the reflection, he debriefed the class in a discussion about the activity and purpose of the reflection activity.

In terms of outcomes, when students did the Felder's Learning Style Inventory and then reflected on their score there was potential for them to think about how they learn and how they approach their own learning and how they construct knowledge. By engaging in such reflection, there was potential for students to re-evaluate and better prepare for future learning situations.

DIGITAL LIBRARY CONTENT

- 2.1 Assignment Description
- 2.2 Reflection Prompts and Educator Discussion

Recreating the Reflection Activity

	Description
1	Assign the reflection assignment.
2	Talk to the class about Felder's Learning Styles.
3	Assign students to take the Felder's Learning Styles Inventory outside of class.
4	Discuss students' Felder's Learning Style Inventory score. Display the scores and guide the entire class through a reflection of what the scores could mean.
5	Assign students to reflect on their Felder's Learning Style Inventory score.
6	Grade the reflection.
7	Debrief the assignment after it has been graded and returned via course management tool. If students were disgruntled about the activity, engage the students in a discussion about the purpose of the reflection activity.

In the Words of the Educator: Tips and Inspiration

Avoid elevating the level of stress around the reflection. My number one tip is not to elevate the level of stress around the reflection too much. So, I would suggest: don't make it a large part of the grade in the class, don't make the grading onerous, give them reasonably good grades for completing it. These strategies can help alleviate the stress students may experience related to the reflection; therefore, they are better able to engage more meaningfully in the reflection.

Understand the value of reflection. Many engineering faculty are not comfortable with the idea of asking students to talk about themselves and share their own stories. It can be challenging to understand the value of a reflection activity when it may seem unrelated to the academic requirements of the course.

Acknowledge different students' reaction to reflection. The other tip is that it is a good idea to acknowledge that not everyone is going to enjoy engaging in reflection, but as educators we are also aware that not everybody enjoys solving differential equations. To address this challenge, I suggest (1) talking to students about the importance of reflection and (2) trying not to take things personally. In talking to students, I make sure to highlight that reflection is an opportunity to stretch yourself and do something that you are not comfortable with and to understand that in this class there are going to be students who will enjoy reflecting, so we are doing this for them as well. I think making that public is really important, and sets a tone for the class. Finally, at the end of the day, I try not to take things personally—have a thick skin.

Recognize that some students won't take reflection seriously. I think one of the challenges is that some of the students do not take reflection seriously. These students are just going to turn in a paragraph that they wrote 5 minutes before it was due and you have to decide what you are going to do with that. Some educators are probably more tolerant of that than others to this type of behavior, but it's important to recognize that this might happen and to be ready to deal with this behavior.

Center for Engineering Learning & Teaching. (2015). *California Polytechnic State University, San Luis Obispo Campus Reflection Field Guide – Reflective Techniques to Encourage Student Learning: Background and Examples.* (1st. ed.). Seattle, WA.

Grade the reflection activity. The reflection is worth 5% of the students' final grade for the class. Grading is based on a scale—did you do it 75%, did you put effort and thought into it 85%, did you go above and beyond 100%. Hand back assignment to students.

What was the inspiration for the reflection activity? When I first started teaching this class almost 15 years ago, I was thinking to myself "how do I create an opportunity for those students who feel like engineering is all about math and problems and really want to focus on why engineering is important to them, where it fits into their lives, and things like that?" Based on this brainstorming, I naturally thought that reflection was probably the best way to support students' thinking about these topics. In fact, when I came up with this idea I had never heard of reflection in engineering pedagogy.