

Using Reflection Papers for Continuous Improvement

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TEACHING TIPS

Student feedback plays an important role in efforts to continuously improve courses. In addition, such feedback can help an instructor get a better feel for how well students understand course material. One method for soliciting

student feedback is the reflection paper.

The idea of reflection papers has its roots in a report commissioned by Derek Bok, President of Harvard. One of main findings of the report is that a key problem with undergraduate students is that they do not reflect enough about their own learning, but rather wait for an event such as a test or project. One response to this finding is to have students write a "one-minute" paper at the end of each class on what they learned in that class. However, in our experience this often rushes the students too much, which leads to less than desirable results. It may be better to give the students more time to reflect on their learning.

A reflection paper is a structured method for giving students an opportunity (and a push) to reflect on their learning, and for gaining feedback from students. Although the exact design of a reflection paper may vary, the basic idea is to ask students to respond to a series of open-ended questions. The term "reflection" comes into play because these questions should prompt students to think back on various aspects of the course and the material covered. For example, we generally like to ask students to respond to the following questions

- What have you learned since the beginning of the course (or last reflection paper)?
- What topics are still unclear?
- What do you like about the course and the way it is conducted?
- What do you not like about the course and the way it is conducted?
- What would you like to see changed about the course?

In addition, we also ask students to provide any other comments they feel would be helpful. This gives them the opportunity to give us feedback that may not fit into their responses to the questions. Note that we combine questions that lead to reflection on learning with questions that solicit feedback on the course.

In some cases, it can be helpful to ask additional, course-specific questions. An example of a learning reflection question might be used in courses where teamwork is involved. We have found it very helpful to ask students to reflect on and write about what they have learned about working in a team on a project. A feedback example would be to ask questions related to how helpful the students find lab assistants.

When should reflection papers be completed and turned in? We find that tying the due dates to evaluation milestones (tests) is helpful. This prompts students to reflect on and try to make sense of course material as part of their exam preparation. Also, in most classes this allows for some mid-course correction, if the feedback indicates a need for change. It also provides for additional explanation of poorly-understood concepts.

It is also helpful to discuss the results of the reflection papers, and the impact the feedback has. For example, prior to the first paper, an instructor might tell students about some changes that have come about as a result of previous students' reflection papers. We also find it useful to provide a synopsis of the feedback after each set of papers.

What are the benefits of using reflection papers? First, the act of reflecting on course material helps students synthesize and better understand the material in its totality. Second, the papers let the instructor know how the students view the structure and delivery of the course itself. A third benefit as discussed above, they provide valuable feedback for the instructor on how well course content is understood. Another benefit is that the reflection papers provide a record of students' perceptions of the course and may serve as evidence of efforts made by the instructor to continuously improve the course. This may be beneficial for teaching evaluation purposes. A final benefit seems to be the impact on students' attitudes toward the instructor. Students seem to appreciate the opportunity to provide feedback and further appreciate the fact that the instructor is willing to take the time to solicit and seriously consider input from the students.

Call For Teaching Tips:

The Journal of Information Systems Education is soliciting teaching tips for this column. Contributors will be acknowledged by having an edited version of their tips with their name and affiliation published in the Journal. Tips should be from one paragraph to two pages long and should address the contributor's experience using the tip (both what works and what didn't work). To contribute via Internet, address it to **Dr Kevin Lee Elder** at klelder@ibm.net. To contribute via regular mail, address it to **Craig Van Slyke, Ph.D Associate Editor**; JISE, Management Information Systems Department, Copeland Hall 236, Ohio University, Athens, OH 45701-2979.



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