

Staying Informed: Using Student Reflections As Teaching Tools

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Introduction/Need for Innovation

Students engage in experiential learning during the process of website design and development. Kolb (1984) identified four abilities learners must use to be effective. These abilities included learners engaging in new experiences, reflecting on their experiences, integrating their reflected observations, and applying them to decision making or problem solving directly connected to the learning experience (Kolb, 1984). Harder et al. (2021) identified experiential learning theory as common across all specialization areas. Student reflection related to the experiential learning cycle has received much attention, but little is available about using student reflections as part of an educator's experiential learning process. The closest term to yield results related to teacher learning was "student feedback" which included studies and the implications of end of semester formal university feedback mechanisms.

Thus, this project engaged students in experiential learning and used student's written reflections to allow the instructor and teaching assistants to engage in the learning cycle as well. This occurred as the students provided written reflections which called on the instructor and teaching assistants to engage concrete experience abilities as they engaged fully with each student's project. Reflective observation occurred during weekly meetings where the instructor and teaching assistants reviewed student reflections and discussed all of the possible options for addressing student needs. The team brainstormed options for curriculum and instructions and direct solutions for students. Finally, they employed their solutions to improve student learning outcomes through the generation of resources to support student learning.

How it works

Students were instructed on how to design and develop websites as part of a combined section course of graduate and undergraduate students. The only prerequisite was a sophomore level computer applications course, and students from various majors were enrolled. Students had varying levels of knowledge and experiences based on their responses to a questionnaire completed on the first day of classes. Thus, the course content had to be tailored to meet students where they were at in terms of skill level and basic knowledge of websites. The course enrollment was 33 total students.

Due to the technical nature of website design and development, feedback was collected through reflections throughout the instructional process. Moreover, students were required to incorporate basic website elements, but their website topics ranged from a professional online portfolio site, e-commerce/business site developed for someone, or a site about a topic of interest to them. Additionally, students were allowed to select a content management system (CMS) platform that best met their website goals. Thus, the goals and needs of students were varied.

The instructor and two teaching assistants met weekly to overview upcoming content and develop reflection questions. Each reflection included questions about course content like accessibility or design considerations as well as a question about topics in which students needed clarification (i.e. usability testing), or topics of interest for adding to their knowledge base (i.e. html coding practice). Feedback received through the reflections was used to review topics at the start of each class and develop resources for students. It even allowed one-on-one attention for students who wanted to pursue more advanced website goals. The graduate assistants and instructor located resources after each reflection and made them available for all students. This created an improvement over previous semesters when the instructor provided generic and overarching resources due to time limitations.

Results To Date

The reflections provided three key positive outcomes. First, instruction was improved by collecting and reviewing the reflections after each class. It allowed each student, not just those willing to email the instructor, a channel to express needed support or input. For example, “I would like to learn a bit more about how servers work and how these websites run off different servers.” Another student shared, “I am interested in coding, but since we don’t need it for this course, could you direct me toward more resources [where] I could learn more?” Second, the instructor noted students were more engaged in the lecture based-content because they knew they had to reflect on class concepts from lectures and demonstrations. Using the reflections provided a way to assess learning without having extra grading from quizzes. Third, students were more independent in their work compared to previous semesters because they had plenty of resources to support their interests and meet assignment requirements. One example of this came from feedback about their confidence levels learning a CMS without direct in-class instruction. One student stated, “I feel 75% confident about my knowledge of designing a website with my content management system. I also appreciated that [instructor] provided videos to learn more about the CMS platforms available for students.” Another student expressed, “I might not be learning it directly from my teacher but its not like I was told go learn about CMS without further instruction or resources.”

Future Plans/Advice to Others

The instructor will continue to use reflections to collect feedback from students for complex instructional content, regardless of teaching assistant support, at the end of each class. It made the process of supporting student learning more manageable compared to previous semesters when students emailed questions independently between class meetings. Instead of soliciting the class for questions at the start of the following lesson, the instructor was able to build additional instructional content and add it to the course learning platform which decreased the number of students who asked the same questions independently. It is recommended to build in time immediately after each class to review the reflections, so you have adequate time to identify and deploy resources via your instructional platform or develop instructional content prior to the next class meeting. This also provided student with timely support and prevented them from being stuck on a step for several days. Additionally, this provided immediate feedback for improved instruction.

Costs/ Resources Needed

This innovation required no financial costs due to the use of electronic reflection forms. Additionally, the campus has a subscription to Lynda by LinkedIn. It was a resource for supplemental instructional content, so exploring availability through your campus is recommended. The instructor has traditionally taught the course without any teaching assistant support, but was able to utilize two teaching assistants. Having at least one teaching assistant to assist with compiling and posting resources is immensely helpful and improves efficiency for providing the needed resources.

References

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