



USING FORMATIVE FEEDBACK TO TEACH PHARMACY STUDENTS TO WRITE CRITICAL SELF-REFLECTIONS

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ABSTRACT: Oral Presentation (10:15 a.m.)

- Purpose:** Critical thinking for pharmacy students is essential for when they become practising pharmacists. According to Morrow (2014), critical reflections help to develop critical thinking. We conducted a study with two cohorts of pharmacy students to improve their critical self-reflective skills.
- Methods:** Students wrote eight self-reflections in an electronic portfolio over four semesters. They received formative feedback in the form of individual written feedback after the second and subsequent self-reflections, but no feedback between the first and second reflections. Students also received whole class explicit formative feedback instruction after the second to seventh reflections. Student learning was determined through quantitative analysis using a rating scale. The results were analyzed using three scales: knowledge, self-assessment, and critical writing. In addition to writing the self-reflections, students wrote about their learning during the study at three different time points: end of second course, beginning of third course, and end of fourth course. Qualitative analysis was conducted to explore the students' understanding of their learning.
- Results:** Students improved from their first to eighth self-reflections in the three scales. For example, with the knowledge scale, there was no significant difference in means between the 1st and 2nd reflections, $p=.787$. There was a significant difference between 1st and 3rd ($p=.009$), and the pattern continued. There was also a significant difference between 2nd and 3rd ($p=.027$), and the pattern continued. However, the qualitative analysis revealed that while some students thought they improved in their ability to self-assess and think critically (about 68%), not all students valued the formative feedback (only about 52%). However, there was an important distinction between the two cohorts. More students in their first two years of the program valued the self-reflections and formative feedback than did students in their third and fourth years, respectively 24/37 for the first and second year students, while only 16/40 for the third and fourth year students.
- Conclusions:** Quantitative analysis indicated students improved in their critical thinking and self-assessment skills. Qualitative analysis revealed that not all students believed in the value of the formative feedback. Instructors have continued to use this instructional method in their pharmacy practice courses.