The Peer-Led Team Learning (PLTL) workshop model is incorporated into General Chemistry for students at the City College of New York (CCNY). Peer Leaders are encouraged to motivate the students to think and interact with fellow students in solving chemistry problems. Before Peer Leaders work with the students, the professors meet with the Peer Leaders to provide problems based on the week’s lecture for the students to work on at the next workshop meeting. Attendance is mandatory in workshop and a quiz is given at every workshop meeting to reinforce the concepts of the problems. The quizzes, attendance, and participation in workshop average up to 10% of the student’s total grade in the course.

With PLTL, students are greatly benefited with a better understanding of chemistry. However, the foundation of the PLTL model crumbles without the full support of the professor. In the semester I served as a Peer Leader, a professor decided not to count workshop as 10% of students’ grade. Because of this, students’ motivation to attend and participate in Workshop disappeared (see Figure 1).

As seen in Figure 1, many students are not intrinsically motivated to learn chemistry. The high peaks at weeks 4, 8, and 12 are the week prior to the chemistry exams. This suggests that the students are interested in passing their chemistry exam. The workshop meeting before the exam had a high number of students attending workshop. Although workshop participation encouraged students to work together to solve problems, in many cases due to absences from previous weeks many of the student did not understand the concepts fully and had difficulty solving the problems. Because there is a limited amount of time and most of the students did not know how to go about solving the problem, it slowed down the number of problems that the students and Peer Leader were capable of reviewing. It also created pressure on the Peer Leader to show the methodical steps in achieving the answer to the problems.

Figure 1: Number of students participating each week in my workshop

Without the support of the professor, Peer Leaders are dependent upon students who are intrinsically motivated on their own to learn and come to workshop. The absence of students makes it difficult for a few students in workshop to collaborate together to solve a problem. As a result, there may be some students who do poorly in their chemistry exam from “last minute cramming.” They are no longer intrinsically motivated to continue chemistry workshop because they are not doing well in their exam. Since the professor did not reinforce the importance of attending chemistry workshop, the students may decide not to attend. This reflects negatively on the PLTL model and discourages students from continuing with the Chemistry Workshop.

Therefore, it is important to stress the significance of extrinsic motivation. Extrinsic motivation such as 10% toward the student’s grade provides the student incentive to do well in chemistry by attending Workshop. With positive outcomes, the students are further extrinsically motivated to excel. As Deci and Ryan’s (2001) Self-Determination theory states, intrinsic motivation is influenced by the competence one feels in achieving a goal and it is influenced by parents and teachers. It becomes necessary that professors provide the incentive for the students to do well in chemistry by reinforcing the importance of the PLTL Workshop for the students.

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Reference
