

Seminar Approach for Study Group Leader Training

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At the university during fall 2006, I created a college-credit course to help group leaders apply educational theories during their study group sessions. This course was required of all new group leaders starting during fall semester. Rather than a didactic class format led by me as the instructor, a collaborative seminar model was employed. In the class, these students studied education theory articles and discussed how to apply this information to their weekly sessions. This understanding helped them create new learning activities not contained in the formal training program. It also made better sense of dynamics within the group and how to employ culturally-sensitive learning activities. This course was part of a larger required professional development component for the study group leaders.

Introduction

A new approach for providing academic support for students began during 2004 at the University of Minnesota-Twin Cities. The Peer Assisted Learning (PAL) program was created to serve students in large, introductory courses that are academically rigorous. Typical classes were general chemistry, organic chemistry, and college algebra. All had rates of 30% or more final course grades of D, F, or course withdrawal. These courses were selected through discussions with the academic department chairpersons. The PAL program shares similarities with the approaches of Supplemental

Instruction, Peer-led Team Learning, and the Emerging Scholars Program (Arendale, 2014). Thus far, the PAL approach has improved academic performance for participating students (Cheng and Walters, 2009; Ediger, 2007; and Lilly and Goegen, 2011). I was appointed to the leadership team for developing the PAL program and its training component.

In the beginning, we used a standard approach to training the undergraduate students who served as PAL facilitators of these study groups. The study group leaders were selected through a competitive interview process after employment announcements had been posted on campus. The applicants were evaluated on the basis of their interest in the position, subject-matter competence, communication skills, and recommendations from faculty members and others. We used the popular curriculum developed by Ross MacDonald (2000) and our own training manual (Arendale and Lilly, 2012). A two-day training workshop occurred before the beginning of the semester for the PAL facilitators. Based on surveys of the workshop participants, results from the training program were satisfactory, but we wanted to explore other options.

During Fall 2006, we added a one-credit course for training the new facilitators (Arendale, 2010a). Enrollment in this course was required for PAL study group facilitators during their first semester of service at the university. I co-taught the course with my graduate assistant, Kari-Ann Ediger. The following year she suggested we employ a seminar format for the course and use academically-rigorous articles to spur discussion for application of theory to practice. She had primary responsibility for teaching this course during the first year, and I taught it for the following three years. A modified version of the course now continues under a different instructor. This article provides an overview of the curriculum as I taught it with suggestions for its use by others.

Review of the Professional Literature

Through the national study of more than 160 colleges, Boylan, Bliss, and Bonham (1997) identified the positive impact of tutor training programs upon their effectiveness in helping students earn higher grades. Other researchers have identified important components of that training. A study by Barron and

Font (1991) found understanding the underpinning theory for desired procedures led to more effective use of them. Ricks and Sheets (1991) advocated for a holistic training agenda for tutors with attention to cognitive and student development outcomes since both were linked to higher achievement. Higbee, Arendale, and Lundell (2005) advocated for greater understanding and application of learning theories to education practices in developmental education and learning assistance. Lipsky (2006) describes a credit-bearing course for training study-group leaders. Understanding educational theories is part of the recommended curriculum by the College Reading and Learning Association through their tutor training certification (2014).

Overview of the Seminar

Enrollment in Exploring Facilitated Peer Learning Groups is part of the professional development of PAL facilitators during their first semester of service (Arendale, 2010a). The one-credit course is free since full-time students pay the same tuition for 15 or more credit hours. It meets weekly over the academic term. PAL facilitators also participate in a two-day training workshop before the academic term begins, attend weekly PAL team meetings with the program director and staff, and participate in other activities. Nearly all PAL facilitators are undergraduates.

This course takes a different approach to continued professional development of the new PAL facilitators. The previously mentioned two-day training workshop uses instructor demonstration, and has the facilitators practice specific study-group skills and strategies. This course explores peer learning groups and the educational theories that influence their effectiveness. As students learn the underlying theories, the class generates specific applications for their PAL sessions. This course provides the grounding for the procedures practiced during the initial two-day training workshop and builds the facilitators' capacity to innovate with creating their own theory-based study group activities during the academic term. Rather than using didactic instruction, I use a seminar approach to foster more engagement of the students with the course topics with me serving as moderator of the discussion.

The course has seven learning objectives:

1. Identify and discuss the application of learning theories with peer-assisted learning groups.
2. Increase skill in small group management skills to achieve learning objectives.
3. Contextualize learning strategy modeling and instruction within the specific academic context area supported by PAL.
4. Learn to analyze the learning needs of others and make modifications to the learning environment.
5. Grow as independent learners and build upon their current strengths through development of new learning strategies.
6. Further develop intellectual skills of analysis, synthesis, critical evaluation, and application through completion of course activities.
7. Adopt new strategic learning strategies to successfully apply with course material.

The course requires students to make weekly journal entries through the course web site which is only viewable by the course instructor. The entries focus on the reflections about their academic and personal changes as a result of this experience, and as the instructor, I found it useful to provide feedback based on their entries. In addition, the PAL facilitators complete an extensive end-of-term experience survey as a capstone reflection of their experience and how they changed academically and personally. I also interviewed each student for an audio episode of a course podcast which I moderated (Arendale, 2010b). Selected episodes are assigned by the PAL program director for review by facilitators.

Course Curriculum

The central core of the PAL facilitator course is discussion of educational psychology topics and their relationship to PAL activities. Each PAL facilitator is given a choice of topics for their presentation. In my case, I provided a small number of research-based articles from which to select. (Following this section is a

list of the topics and a choice of articles I provided them.) After taking a few minutes to review the paper copies of the articles, each student selected one of the articles, and I retained the master copy. Based on it, I developed several questions for use during the class discussion following their presentation also with my brief remarks at the beginning and end of the class session regarding the topic and application to PAL. Each student in the class was required to read only his or her article.

I allowed each student 15 minutes for their assignment—approximately eight minutes to present and seven minutes to lead a class discussion. The focus was application of the article to PAL sessions and not analysis of the entire article, especially the research method and analysis sections. One topic was addressed each week during the one-hour class session with three students typically presenting each week. When possible, the three students shared on the same topic category.

In addition to participating in the class discussion, students completed a short written response to the following prompts on a form I provided: (a) what is something new learned from the presentation? and (b) what about the speaker's presentation went well or what could be improved? This writing activity made them accountable for actively listening to the presentation as well as providing useful feedback to the presenter, and the written feedback enhanced professional development of the presenters regarding their public speaking skills. The form was printed on two-part carbonless paper with the original copy being given to the presenter and the other retained by me. I also completed a form for each presenter as well.

The following is an abridged list of articles from which the students chose. I placed a paper copy of each article on a table in the classroom on the first day of the course, and students were given sufficient time to briefly review the articles and then make their selection. Without prompting from me, students selected articles from all the categories. With a class size of 20, often three students would select from the same category.

Goal Orientation Category

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, 54(1), 5-12.

Gordon, S. C., Dembo, M. H., & Hocevar, D. (2007). Do teachers' own learning behaviors influence their classroom goal orientation and control ideology? *Teaching and Teacher Education*, 23, 36-46.

Harachiewicz, J. M., Barron, K. E., Tauer, J. M., & Carter, S. M. (2000). Short-term and long-term consequences of achievement goals: Predicting interest and performance over time. *Journal of Educational Psychology*, 92(2), 316-330.

Linnenbrink, E. A. (2005). The dilemma of performance-approach goals: The use of multiple goal contexts to promote students' motivation and learning. *Journal of Educational Psychology*, 97(2), 197-213.

Self-Efficacy and Belonging Category

Bong, M. (2004). Academic motivation in self-efficacy, task value, achievement goal orientations, and attributional beliefs. *The Journal of Educational Research*, 97(6), 287-297.

Preckel, F., Holling, H., & Vock, M. (2006). Academic underachievement: Relationship with cognitive motivation, achievement motivation, and conscientiousness. *Psychology in the Schools*, 43(3), 401-411.

Stevens, T., Olivarez, A., Lan, W. Y., & Tallent-Runnels, M. K. (2004). *The Journal of Educational Research*, 97(4), 208-221.

Metacognition Category

Goos, M., Galbraith, P., & Renshaw, P. (2002). Socially mediated metacognition: Creating collaborative zones of proximal development in small group problem solving. *Educational Studies in Mathematics*, 49, 193-223.

Mayer, R. E. (1998). Cognitive, metacognitive, and motivational aspects of problem solving. *Instructional Sciences*, 26, 49-63.

Mevarch, Z. R. (1999). Effects of metacognitive training embedded in cooperative settings on mathematical problem solving. *The Journal of Educational Research*, 92(4), 195-205.

Schurter, W. A. (2002). Comprehension monitoring: An aid to mathematical problem solving. *Journal of Developmental Education*, 26(2), 22-24, 26, 30, 32-33.

Vukman, K. B. (2005). Developmental differences in metacognition and their connections with cognitive development in adulthood. *Journal of Adult Development*, 12(4), 211-221.

Help-Seeking Behavior Category

Ryan, A. M., Patrick, H., & Shim, S.O. (2005). Differential profiles of students identified by their teacher as having avoidant, appropriate, or dependent help-seeking tendencies in the classroom. *Journal of Educational Psychology*, 97(2), 275-285.

Stavrianopoulos, K. (2007). Adolescents' metacognitive knowledge monitoring and academic help seeking: The role of motivation orientation. *College Student Journal*, 41(2), 444-453.

Trautwein, U., & Ludtke, O. (2007). Students' self-reported effort and time on homework in six school subjects: Between-students differences and within-student variation. *Journal of Educational Psychology*, 99(2), 432-444.

Diversity Category

Davis, J. & Martin, D. (2008). Racism, assessment, and instructional practices: Implications for mathematics teachers of African American students. *Journal of Urban Mathematics Education*, 1(1), 10-34.

Martin, D. (2006). Mathematics learning and participation as racialized forms of experience: African American parents speak on the struggle for mathematics literacy. *Mathematical Thinking and Learning*, 8(3), 197-229.

Nasir, N. S. (2002). Identity, goals, and learning: Mathematics in cultural practice. *Mathematical Thinking and Learning*, 4(2-3), 213 - 248.

Nasir, N. S., Rosebery, A. S., & Lee, C. D. (2006). Learning as a cultural process: Achieving equity through diversity. In K. Sawyer (Ed.), *Cambridge handbook of the learning sciences* (pp. 489 - 504). New York: Cambridge University Press.

Treisman, U. (1992). Studying students studying calculus: A look at the lives of minority mathematics students in college. *The College Mathematics Journal*, 23(5), 362-372.

Academic Engagement Category

Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education*, 75(3), 203-220.

Miller, R. B., Greene, B. A., Montalvo, G. P., Ravindran, B., & Nichols, J. D. (1996). Engagement in academic work: The role of learning goals, future consequences, pleasing others, and perceived ability. *Contemporary Educational Psychology*, 21, 388-422.

Discussion and Recommendations

This approach to the class has been used since 2008. Based on our experience, I would offer the suggestions for implementation, many of these resulting from trial and error experiences with my own seminar students. If I were still teaching the class today, I would replace some of the articles indicated earlier based on my recommendations which follow.

1. Clearly direct presenters to focus on a brief overview of the article and then spend two-thirds of their time on applying the educational theory to PAL. I noticed it was easy for the students to spend too much time describing the research study which might be interesting, but neglect enough time on the lesson learned and applications that could be made for their PAL sessions. Use time cards to help the speaker stay on time.
2. Select research articles that focus on college-level or at least high-school students. Otherwise, students are

unsure of the applicability for their PAL sessions if they involved elementary students.

3. Select potential articles that might appeal to them and be appropriate. Experiment with articles of different academic rigor or amount of time spent describing educational theories.
4. The course instructor provides a brief introduction and conclusion to each class session focusing on a clear overview of the educational theory assigned for that class period.
5. Ask the students for permission to post their presentation handouts to the course website so others in the class can reference them.
6. Prohibit students from using Power Point during their presentations. Instead, ask them to create a one-page handout with a summary of what they learned and a list of applications of the theory to their work as a PAL facilitator. My past experience was that students spent too much effort creating visual presentations and not enough time on making applications to PAL.
7. Provide a short overview of these education theory categories during the initial training workshop for the PAL facilitators before the academic term begins. This would help connect theory to what they were learning procedurally during the workshop.
8. If a weekly journal entry is required of the students in the class, ask them to focus specifically on that week's theoretical topic, how they are attempting to implement it within their PAL sessions, and what reactions they are receiving from the students.
9. During the first class period, the course instructor models this assignment by providing a 15-minute session on application of an education theory as described above.

Conclusion

Our students responded well to this approach of introducing theory to the training curriculum. They displayed interest in understanding the connection between theory and the procedures of the PAL program. During the class sessions, students revealed clever and innovative thinking as they worked together using theory to generate practical applications for the PAL sessions. It taught me that a seminar approach with challenging academic material with a strong theory base can be accomplished by undergraduates and not just graduate students. The key for the students was the relevance of theory to their work.

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