California State University, East Bay
Institutional Learning Outcomes Subcommittee
01 August 2014
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The Impact of Co-Curricular Programs on Critical Thinking: A Preliminary Analysis

Introduction

In spring 2014, the ILO Subcommittee of the Academic Senate conducted a study to (1) investigate the impact of co-curricular programs on students' critical thinking as part of the efforts at CSUEB to assess our critical thinking ILO and (2) get student input about how to improve support for these programs. A secondary purpose of the study was to determine whether the methodology used for the current study could be used or adapted as one approach for future ILO assessment efforts in co-curricular programs. This report provides a description of the study and a preliminary analysis of the results. A more complete analysis is forthcoming.

Involving Students in Assessment

This assessment project began as a class project. In winter 2014, MA students in English 6507, Testing and Evaluation in ESOL, participated in a class project that served as a pilot for the ILO Subcommittee study reported on here. For the pilot study, students worked with their professor (Nielsen) to develop and test a focus group methodology for investigating the impact of co-curricular activities on students' critical thinking.

The choice of a focus-group methodology was twofold. First, focus groups allowed for the documentation of concrete examples of students' co-curricular participation impacting their critical thinking. Second, because of the way focus groups encourage reflection on past experience and draw on social interaction to deepen that reflection, the very process of participating in a focus group encourages critical thinking about self and experiences. In other words, the assessment itself had the potential to be a learning experience in which critical thinking was involved.

Once the English 6507 class had developed a focus group script and set of questions, they invited the following co-curricular groups to participate in the pilot: tutors from the Student Center for Academic Achievement (2), graduate teaching associates from the English composition program (2), and participants in the Peer Mentor Program (5). Teams of English 6507 students facilitated six focus groups, presented their notes from the focus groups to the class, and made recommendations for revising the wording and order of the focus group questions as well as suggested additional questions for eliciting examples of critical thinking resulting from co-curricular experiences. These suggestions were included in the focus group protocol used in the ILO Subcommittee study. As an aside, in course evaluations and informal conversations with Nielsen, a number of English 6507 commented on the usefulness of the class project as preparation for assessment they will have to do as teachers of adult language learners.

ILO Subcommittee Co-Curricular Programs Study

Seventy-two students participated in the ILO Subcommittee co-curricular/critical thinking focus groups. (Note that two students in the sample participated in two co-curricular activities and were counted for both activities in the chart below.) Eight co-curricular groups participated in focus groups organized in May and June 2014. Four focus groups were conducted with peer mentors, two with student athletes, two with graduate teaching associates, and two with peer tutors. Two additional mixed focus groups were held for Model United Nations, University Honors Program, Associate Students, Inc., and Catholic Club.

Co-Curricular Activity	**Number of Participants**
Peer Mentor Program	35
Tutoring Program at the Student Center for Academic Achievement	13
Athletics (current and former athletes)	12
Graduate Teaching Associate Program/English Composition	5
University Honors Program	5
Model United Nations	2
Associated Students, Inc.	1
Catholic Club	1

The choice of programs to include in the study was based on suggestions and contacts from ILO Subcommittee members. Although not an ideal way to select programs, this approach seemed appropriate given the timeline for data collection (spring 2104) and given that it was a first attempt to develop one method for assessing the contributions of co-curricular programs to ILO attainment.

As mentioned above, a focus group protocol was used to gather data. The protocol included a script that explained the purpose of the study and the procedures for the focus group as well as seven questions related to students' co-curricular experiences. (The complete focus group protocol is available from the ILO Subcommittee Chair. The focus group questions with annotations about the purpose of each question are included in the appendix.) Focus groups were scheduled in one-hour blocks at a location and time convenient to participants. All focus groups were recorded. Logs of the audio recordings were made and included summaries of the responses to the focus group questions and frequency counts of those responses where appropriate. (To date, only some parts of the audio recordings have been transcribed fully.) Handwritten notes were also taken during focus groups and typed up afterwards.

While a full analysis of the data has not yet been completed, a preliminary analysis was conducted through the coding of the audio file logs and focus group notes for key categories related to co-curricular influences on critical thinking. The categories used to guide this preliminary analysis included time commitment/engagement; critical thinking (problem solving, accounting for context, considering other perspectives); other positive impacts; and areas for institutional improvement in supporting co-curricular programs.

Preliminary Findings about Co-Curricular Activities and Critical Thinking

All eight focus groups were striking in what they revealed about the amount of time and engagement required for participation in the co-curricular programs included in this study. Many of the students spent 20 or more hours per week to meet the requirements for their program. Because these students were involved in these intensive and sustained activities, it was not surprising that every focus group produced examples of critical thinking related to co-curricular participation.

One aspect of critical thinking is the ability to consider contextual factors before drawing conclusions. One example of this comes from the Peer Mentor Program focus groups. Peer mentors receive training in active listening in order to work more effectively with the freshmen students they mentor. The following quote is representative of observations made by other peer mentors and demonstrates an awareness of how contextual factors—in this case physical actions and intonation patterns—affect the interpretation of an event or interaction.

> I feel like critical thinking in a communication setting, this program really helped touch upon this because within this program, you were taught to look at a person's actions and how they're saying things, those little details that really tell you how that person is really feeling without actually saying that they're feeling that way. This program helped a lot with communication with other people. (Peer Mentor Program focus group, 23 May 2014)

A related aspect of critical thinking is taking other perspectives into account when formulating one's own views or taking actions. Students from all co-curricular programs talked about becoming more open minded and being able to understand other perspectives better as a result of working with diverse people with diverse perspectives in their co-curricular program. One of example of this is provided in the quote below. The student athlete reflected on how being on a team has helped her be successful in group projects for classes even though this may not be her preferred way of learning.

> You're more open minded…at least for me with group projects. I'm a perfectionist. I think that's also due to swimming because it's very independent, but at the same time you are trusting everyone around you. So that allows you to put some trust in group projects and be open minded to different views, open minded to change. Because everyone on this team is different and also change is so crucial in swimming, throughout school, throughout work, throughout meeting people, you just have that openness. (Athletics focus group, 05 June 2014)

A student who participated in the Model United Nations (MUN), a program that gives students the opportunity to engage in a process that mirrors that used by the real U.N., illustrates how preparing for and participating in MUN requires the consideration of other perspectives. This example is especially striking for its demonstration of how debate and dialog can lead to new ideas or approaches.

> When you're protecting your own policy and making sure your policy is in line with the country you're representing, you also are evaluating other people's policies and their stances. You critique what they're thinking. For instance, we were in a caucus and one of the fellows that was there was representing Morocco. He was like: Well, our country needs more urban development.

> We need to build up our employment, so we're thinking about moving all our agrarian people to the urban cities. Having taken a Marxist class and an environmental policy class, you realize you don't want to have your agrarian people moving over to the urban areas because, then I posed a question: How's the hunger issue in your country? Well, we don't really have any. Well, that's because you have an agrarian development there, and you don't want to take away from that. So you're thinking about how to help their policy by telling them well, you don't want to take away what you got going good, but you definitely want to explore things that are underdeveloped. Well, then I mentioned maybe you might want to bring education to those agrarian farmers so that they can maybe mechanize their farming techniques or something of that sort. Aside from that, a lot of times you'll get called out by countries that don't agree with you. Aside from knowing your own country's position, you have to think very quickly and react very quickly and respond how your country would respond and in a manner that's appealing to others. (Mixed focus group, 12 June 2014)

Problem solving is often associated with critical thinking, and all focus groups produced examples of this. With regard to problem solving, it was interesting to note differences in approaches to critical thinking among focus group participants. All groups were asked a question about helping another student who was in trouble academically or who was considering leaving the co-curricular program. Some participants responded with lists of campus resources while others discussed contextual factors that would need to be considered before the person could address his/her problem. The latter type of response suggests a more nuanced understanding of how one approaches a problem.

The graduate teaching associates (GTA), SCAA tutors, and peer mentors were most likely to talk about problem solving in classroom settings. For example, one GTA from the pilot study in winter 2014 talked about her initial struggles with applying teaching theory learned in class to teaching in an actual classroom with all its dynamic messiness. To address this, she had to think about students' needs, her observations of what was happening in class, and then decide how to best shape instruction for that particular context. Similarly, one of the peer mentors talked about working with her faculty lead in the general studies (GS) class she supported. Both the faculty member and the peer mentor noticed that the GS students weren't very engaged in class. At the end of the term, they decided to get student input on topics and activities and include some of those the next term, resulting in better participation in the GS class.

Other Findings about Co-Curricular Impacts on Student Learning and Experience

Focus group participants were also asked to reflect on the value of their co-curricular experience more broadly. A wide range of positive outcomes were discussed in the focus groups. In terms of student experience, the two most commonly cited positive outcomes were having a sense of belonging/community and being motivated by working with other committed people. In terms of learning, the most commonly cited positive outcomes were developing leadership skills; learning to manage time/be organized/ balance multiple responsibilities; and a willingness to consider other perspectives. Although not the primary focus of this study, the participants' articulation of a wide range of meaningful learning outcomes and experiences resulting from co-curricular programs suggests that focus groups could be used in the future to gather information about the impact of these programs on other University ILOs.

Areas Indentified for Institutional Improvement

Students across focus groups made the following suggestions about how the University can better support co-curricular activities.

1. Create opportunities for more communication and collaboration between various co-curricular groups (e.g., ASI, Peer Mentor Program, Athletics could coordinate events and student support services in order to reach more students).
2. Promote co-curricular programs more actively so that the campus community is aware of these resources and opportunities; publically recognize the hard work and important contributions that students in co-curricular programs make to the campus.
3. Expand SCAA and other tutoring services to better meet the disciplinary and scheduling needs of students (e.g., more science tutoring, more specialized tutoring in the evening for athletes and working students).
4. Although all focus groups discussed the value of their connection to a community through co-curricular participation, they also expressed the desire to have additional opportunities to meet and engage with students within and across co-curricular programs because they felt they could get support and learn a lot from other people who are similarly participating actively in campus life, pushing themselves to excel and reach out to others, and figuring out how to balance course work, co-curricular commitments, jobs, and family responsibilities.
5. Provide more financial support for co-curricular programs (e.g., fund creative student proposals aimed at increasing student involvement in the larger campus community, fund attendance at professional conferences related to the co-curricular activity).
6. Create better support systems for transfer students.
7. Conduct a study about students' scheduling needs for campus services such as the library, restaurants, tutoring, advising, enrollment services in order to provide better access to services and encourage people to stay on campus and participate in campus activities.
8. Provide more meeting space on campus for co-curricular programs and more informal student gatherings like student-organized study groups.
9. Provide scholarships for student leaders to allow people, who would otherwise need to work off campus, to participate in co-curricular programs.
10. Have more on-campus social events like dances.
11. Have a university hour so that more students can participate in co-curricular activities.
12. Add co-curricular programs to the campus banners.
13. Create more opportunities for international students to get involved in co-curricular activities.

Study Limitations

This study had a number of limitations. As mentioned above, the sample of co-curricular programs was based largely on convenience and time pressure, which resulted in an uneven sample which may not be representative of these campus programs. If focus groups are used again to assess ILOs in co-curricular, more careful planning is needed to create a better sample of programs.

Another limitation of the study is that the focus group recordings have not been fully transcribed. This is necessary for a more complete analysis and is planned for fall 2014. When the transcripts are completed, it will also be necessary to have at least two people code the transcripts in order to increase the validity of the coding decisions. Additional coding categories may emerge from this process as well.

Plans and Recommendations

As mentioned above, a more complete analysis of the focus group data set is planned for fall 2014. This will be shared with the ILO Subcommittee for a discussion of the results and next steps we want to take as a committee to share this information with the larger campus community. In addition, brief reports will be prepared for all the co-curricular programs that participated in the focus groups so that they can use the information for programmatic purposes if appropriate.

Moving forward, the ILO Subcommittee should seriously consider continuing this assessment approach for other ILOs and co-curricular programs, but involve more of the campus community in the process. For example, it might be helpful to meet with co-curricular programs as a group to discuss the concept. Assessment for a particular ILO could be introduced to co-curricular programs early in an academic year in order to get students thinking about it and possibly to organize activities directly related to that ILO. Students might also be trained in collecting the data for the assessment if funding or course credit could be secured for their work on this project.

Acknowledgements

The ILO Subcommittee would like to thank Helen Ly, Multilingual Student Specialist at the SCAA, and Taejung Ma, MA TESOL student, for their assistance in facilitating focus groups and taking notes at focus group sessions. The committee would also like to thank all the focus group participants and members of English 6507 pilot study for their valuable input.

Appendix

QUESTIONS FOR FOCUS GROUPS (CRITICAL THINKING/CO-CURRICULAR) *with annotations*

1. What co-curricular activity do you participate in? What are your responsibilities for this activity on a weekly basis?

Purpose: To gain understanding about the level of commitment to and nature of the co-curricular activity students participated in.

2. What have you found valuable about participating in this activity?
[Probes: What has been valuable personally? Emotionally? Academically? Professionally? Why are these aspects of participating in the activity valuable?]

Purpose: To encourage participants to think about the effects of their co-curricular activity on them individually; to discover additional outcomes for further investigation in other ILO assessment cycles.

3. Critical thinking can be defined in a variety of ways. The Association of American Colleges and Universities defines critical thinking as "a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts and events before accepting or formulating an opinion or conclusion." More informally, critical thinking can be described as deep, careful, creative thinking that is open minded and evidence based. Critical thinking is also involved in problem solving and in developing any complex ability such as teaching, tutoring, or mentoring others.

With these definitions of critical thinking in mind, think about your co-curricular activity. How has it helped you develop your critical thinking abilities?
[Probe: Can you give a specific example of when you were aware that your co-curricular activity had made you a stronger critical thinker?]

Purpose: To elicit examples of critical thinking resulting from co-curricular participation.

4. Think of an issue, problem, or challenge you have encountered when participating in your co-curricular activity. What is/was the issue, problem, or challenge? How have you addressed the issue, problem, or challenge?

Purpose: To elicit examples of critical thinking resulting from co-curricular participation with an emphasis on the problem solving aspect of critical thinking.

5. Imagine you are working with a student who is struggling with to keep up in his/her classes this quarter and is already on academic probation. How would you guide this person? What suggestions would you give him/her?

Purpose: To elicit examples of critical thinking resulting from co-curricular participation with an emphasis on considering contextual factors.

6. Can you think of a specific instance when your participation in a co-curricular activity influenced your thinking in a class you were taking and/or in your life outside of school? Please describe what happened and how your thinking was influenced.

Purpose: To elicit examples of critical thinking resulting from co-curricular participation with an emphasis on how critical thinking skills might be transferred from the co-curricular activity to other domains.

7. What could the university do to better support co-curricular activities on campus?

Purpose: To collect input from students about areas for improvement.