

Proposal for Evaluation of Off-Campus Project Advising

Introduction

The IQP, one of WPI's four degree requirements, is unique in higher education. The spirit of the IQP appears in WPI's mission and goal statements. It is often held up as the centerpiece of our academic experience. In recent years, we've made great strides in understanding the IQP quality, but we have not formally engaged our students in that evaluation.

Student learning outcomes demonstrated in the IQP directly relate to most of the recently approved "Undergraduate Learning Outcomes" of a WPI education (<http://www.wpi.edu/Pubs/Policies/outcomes.html>). Since 1998 student participation in our off-campus IQP program has grown by 250%. Currently, more than 50% of our students complete their IQPs away from WPI. In that same time period faculty participation has grown so that nearly 60% have advised off-campus. Each year about 25 faculty advise at off-campus centers, each handling an equivalent of nearly three, 30-student courses worth of teaching.

Back in 1996, the faculty adopted the following resolution, recognizing the value and diversity of the off-campus advising experience:

"The role of faculty at WPI's off-campus residential project centers is unique in the world of education. This role includes, of course, all of the usual academic project advising functions, such as guiding students through background preparation, execution, and final presentation of the work, evaluating results, and certifying degree requirement completion. Most of this work, however, is done far from the resources and campus support system usually provided for advisors, and students. As a result, the responsibilities of a project center advisor transcend strictly academic roles, and to varying degrees may encompass those of the Dean of Students, Development Officer, University Relations Officer, Admission Officer and Student Counselor. The experience of spending seven or more intensive weeks in a challenging new environment with a group of selected student whose capabilities are expanding daily can be the teaching highlight of an academic career." (1)

Although the endorsement officially expired in 1999, little has changed in the reality of off-campus advising, and in fact responsibilities have expanded due to increased student participation, and increased attention to student preparation and health and safety.

WPI's criteria for tenure include the statement: "High quality teaching, undergraduate and/or graduate is an essential (but not sufficient) requirement for obtaining tenure at WPI. High quality teaching can be evidenced in many ways, including... the quality of the Major Qualifying Projects, Interactive Qualifying Projects, ...". Teaching is also highly valued in promotion considerations, and is routinely part of annual evaluations. Student course evaluations are required at the end of each term for every undergraduate course, and are part of the evidence analyzed to establish "high quality teaching". However, one of the major teaching activities at WPI, IQP advising, is not evaluated in any systematic way. A fair advising evaluation system would provide feedback for teaching improvement, provide data for reward and lead to faculty

development; all of which would improve the student learning experience. CAP's creation of the ad hoc committee for evaluation of teaching further indicates the value of teaching at WPI and the desire to provide a fair, valid, and reliable teaching evaluation system. And, despite the IQP's uniqueness many universities are implementing similar programs (for example service learning like EPICS, Engineers Without Borders, Engineers for a Sustainable World). We have an opportunity to provide some leadership, and to gain external recognition, by being one of the first to understand and assess teaching in these non-traditional learning environments.

So, we have an important part of our educational experience that impacts many students, is supervised by many faculty, involves a great deal of time, requires teaching expertise outside the traditional academic role, is unique in higher education, is valued by the university, yet for which a formal evaluation system does not exist. Recent reports by two external evaluators both recommended more systematic student program evaluation (2, 3).

The IGSD has long recognized this issue with off-campus advising. Frequently faculty ask after advising off-campus "How did I do?"; and much more often students express concern that although they "always filled out the blue sheets for classes, how come there was nothing similar for this big IQP experience?" As a result, the IGSD took a more serious look at advisor evaluation starting in the spring of 2002. Because it is both a broad and voluntary activity, off-campus advising was the focus of efforts to develop an evaluation system. This report presents the results of that process and proposes the adoption of an off-campus project advising evaluation system.

The Process

In the spring of 2002, the IGSD appointed a committee of faculty, staff, and students to develop an off-campus advisor evaluation system. D. DiBiasio (IGSD Assessment Coordinator) chaired the committee consisting of W. Mott (HUA), F. Looft (ECE), D. Snyder (Academic Advising), A. Beaudoin ('02) and C. O'Malley ('03). We met through the spring and summer and our activities are summarized below:

1. The various characteristics and dimensions of off-campus advising were discussed and explicated. This included input from various constituencies such as faculty, administrators, and students.
2. A consultant, Raoul Arreola¹ (4), was engaged to assist in #1 and to help frame the overall assessment process. Our goal was to have a system that gathered input from a variety of sources using multiple instruments.
3. The committee and consultant identified four advising dimensions and four sources of data. We decided to concentrate first on an instrument that elicits feedback from students.

¹ Dr. Arreola (an educational psychologist and Professor & Director Institutional Research, Assessment & Planning at the U. Tenn, Memphis) has published in the areas of distance education, academic leadership, and faculty evaluation and development systems. His book (4) is widely used in colleges and universities in designing faculty evaluation programs. He has served as a consultant to over 250 colleges and universities nationally and internationally as well as to several state and federal agencies in 1) designing and operating faculty evaluation and faculty development programs; 2) implementing instructional technology applications to teaching; 3) developing assessment strategies to meet accreditation requirements; and 4) designing and evaluating licensure examinations (http://www.utmem.edu/%7Erarreola/personal_page.php).

4. Dr. Arreola took our dimension descriptions and developed a questionnaire. The form has a front page with Likert-scaled responses to 34 prompts and a reverse side for narrative responses. The form was reviewed by the committee and the IGSD, and slightly modified.
5. During AY 02-03 and summer 2003, the form was pilot tested at all off-campus sites on a voluntary basis. This pilot was an *evaluation of the form*, not a pilot evaluation of the advisors. Completed forms were collected by the IGSD, stored without review, and the raw data was transferred to a spreadsheet that was sent to Dr. Arreola. Neither side of the form was read by anyone other than staff doing the data transfer and Dr. Arreola.
6. Dr. Arreola analyzed all the data from that pilot and produced a modified form acceptable for presentation to the community.

Results

We identified advisor dimensions that encompass the academic and non-academic areas of off-campus advising, and we identified specific sources for data collection. Ideally one desires multiple data sources for each dimension. Also, the ideal system would have a single instrument for each data source particularly if that data source connects to more than one dimension. Table 1 summarizes this “ideal” off-campus advisor evaluation system. We proposed four major data sources, shown in the first column, and four important advisor dimensions, shown in the first row. The check mark means that data source is appropriate for the corresponding dimension. The first two dimensions relate primarily, but not solely, to academic issues and the second two comprise most of the non-academic areas.

Table 1: Evaluation Matrix for an Ideal Off-Campus Advisor Evaluation System

<u>Advising Dimension:</u> <u>Source:</u>	Project Support and Facilitation	Accessibility and Personal Support	Cultural Guidance and Orientation	Policy Compliance
Students	✓	✓	✓	
Co-Advisor		✓	✓	
IGSD			✓	✓
Self-Evaluation	✓	✓	✓	✓

The dimensions are summarized below:

- **Project Support and Facilitation:** academic support including things such as grading criteria clarity, content knowledge, promptness/quality of feedback, management of team dynamics, consistency in standards
- **Accessibility and Personal Support:** willingness and availability for personal, academic, and non-academic issues; ability to create an atmosphere of trust and respect, resourcefulness in help solve non-academic problems; maintenance of communication with team
- **Cultural Guidance and Orientation:** provided encouragement/opportunities for acculturation; assistance in host culture issues including health and safety, local customs; promoted cultural activities
- **Policy Compliance:** fulfilled responsibilities to WPI including enforcement of university policies, safety/liability issues, assistance in managing/adjudicating off-campus student behavioral issues

Discussions included the practicality of designing and implementing instruments that address all four data sources. Students should be able to provide feedback on several academic and non-academic areas. Their input was our primary focus. Since nearly all off-campus centers are co-advised, an ideal system would have some sort of peer evaluation. The “IGSD” row represents data from those closest to each center and responsible for the complete global program operation. This could be any or all of the following: the specific site Center Director, the IGSD Dean, the IGSD Associate Dean, and the Director of Global Operations. These data sources are restricted to mostly non-academic areas. Finally, since self-evaluation is an important part of all good teaching evaluation systems, it was included.

After some discussions in the IGSD, and after reading the final report of the ad-hoc teaching evaluation committee (5), the division concluded that obtaining reliable, fair, and valid data from co-advising peers and the IGSD is problematic. Although such data could be valuable, the effort required to develop valid instruments, to train and calibrate all involved, and to avoid putting co-advisors, staff, and faculty colleagues in potentially difficult and awkward positions did not justify further work. The ad-hoc committee had similar problems with a systematic classroom peer evaluation process, even though such systems are described in the literature (6,7) and are practiced in many universities.

In the spring of 2004, Dr. Arreola sent us his report. The student form pilot had a response rate of 40% with a total of 124 returns. Arreola’s factor analysis resulted in some minor modifications to the questions and reduction of the form to 24 prompts. Sixteen prompts relate to “project support and facilitation” (primarily academic), four relate to “accessibility and personal support”, and four relate to “cultural guidance and orientation”. The final version is attached to this report.

Hence, the proposed off-campus advisor evaluation system involves data from two sources: students (using the new form) and self-evaluation. This is summarized in Table 2.

Table 2: Proposed Off-Campus Advisor Evaluation Matrix

<u>Source:</u> \ <u>Advising Dimension:</u>	Project Support and Facilitation	Accessibility and Personal Support	Cultural Guidance and Orientation	Policy Compliance
Students (new form)	✓	✓	✓	
Self-Evaluation (open format)	✓	✓	✓	✓

A Proposed System

We propose that CAP review and, if in agreement, bring to the full faculty an off-campus advisor evaluation system described below:

1. The new advisor evaluation form is implemented for each advisor when each off-campus IQP experience concludes. The advisors distribute the form, but completed forms are collected by a designated student and mailed from the site to the IGSD (or Registrar).
2. Numerical data (the front page) are recorded by the IGSD (or Registrar) and made public per current procedures (those used by the “blue” form). Original forms are returned to each advisor. This procedure follows current practice and recommendations from the teaching evaluation literature: numerical responses are available to all, but narrative responses are viewed only by the advisor.
3. At the conclusion of an off-campus experience, each advisor submits a self-evaluation to the Dean of the IGSD. We believe the self-evaluation format should be open, taking any of the forms exemplified by teaching portfolio protocols. Topics addressed might include the advisor’s advising philosophy, evaluation standards, system for providing feedback to students, comments about each project, self-evaluation of strengths and weaknesses and plans for improvement. The narrative should cover academic and non-academic dimensions. It might also provide valuable feedback to the IGSD Dean about site-specific operations.
4. The IGSD Dean would evaluate the data from both sources and use the results for recommending reward and faculty development. This is also consistent with recommendations from the teaching evaluation literature. The Dean would provide a report to the advisor’s Department Head, with a copy to the advisor. Action regarding recommendations for improvement, if needed, would be jointly discussed among the Dean, the Department Head, and the advisor.

5. We propose implementing the system in the fall, 2005 with a report to CAP (by fall, 2006) assessing the first year's implementation (including recommendations for improvement). Surveying students, advisors, department heads, and the IGSD about their experiences with the new system would assess the first year's implementation. This assessment could provide a basis for adapting the process appropriately for on-campus IQP advising, and perhaps MQP advising.

Summary

The off-campus IQP program provides students unique opportunities to satisfy an important degree requirement. We have high student and faculty participation, yet unlike other teaching activities at WPI we do not provide the students an opportunity to give us feedback. Lack of such data prevents faculty from improving their advising and from being rewarded for both participation and achieving high-quality advising. We propose an advisor evaluation system that helps remedy that problem, and is relatively straightforward to implement.

References

1. excerpt from document: *Roles and Responsibilities of Advisors for WPI Residential Project Centers*, passed at Faculty Meeting, May 16, 1996.
2. Herrin, C. *Report on Education Abroad Programs at Worcester Polytechnic Institute*, prepared for the IGSD by Herrin, Inc., March 2005.
3. Schoenberg, R. *The Value of the IQP: A Report to the Interdisciplinary and Global Studies Division Worcester Polytechnic Institute*, December 2004.
4. Arreola, R. *Developing a Comprehensive Faculty Evaluation System*, 2nd Ed., Anker Publishing, Boston, 2000.
5. *Report of the Ad Hoc Committee on the Definition and Evaluation of Effective Teaching*, submitted to CAP, January 9, 2004.
6. Felder, R. and Brent, R., *How to Evaluate Teaching*, Chem. Engr. Education, 38(3), 200-202, 2004.
7. Felder, R. and Brent, R., *A Protocol for Peer Review of Teaching*, Proceedings of the ASEE Conference, Salt Lake City, UT, 2004.

Attachments

Proposed Student Off-Campus Advising Evaluation Form

Roles and Responsibilities of Advisors for WPI Residential Project Centers

WPI Off-Campus Advisor Evaluation Form

1. The advisor was willing to meet with the team as often as needed.	SA	A	D	SD
2. The advisor held the team accountable for the actions of individual members. ²	SA	A	D	SD
3. The advisor encouraged the team to clearly articulate project goals.	SA	A	D	SD
4. The advisor reacted to problems in a timely manner.	SA	A	D	SD
5. I felt I could go to the advisor for advice on nonacademic issues.	SA	A	D	SD
6. I felt I could go to the advisor for solutions to nonacademic problems.	SA	A	D	SD
7. The advisor was willing to listen to my opinions.	SA	A	D	SD
8. The advisor was easily accessible when problems arose.	SA	A	D	SD
9. The advisor challenged me in a constructive manner.	SA	A	D	SD
10. The advisor encouraged creativity in resolving project problems.	SA	A	D	SD
11. The advisor encouraged the team members to work as a cohesive unit.	SA	A	D	SD
12. The advisor facilitated open and honest group discussions.	SA	A	D	SD
13. The advisor created an atmosphere of trust.	SA	A	D	SD
14. The team meetings with the advisor were helpful.	SA	A	D	SD
15. The advisor was knowledgeable about the project.	SA	A	D	SD
16. The advisor clearly communicated expectations concerning the project.	SA	A	D	SD
17. The advisor was willing to listen to my suggestions regarding the project.	SA	A	D	SD
18. The advisor was willing to listen to my ideas regarding the project.	SA	A	D	SD
19. The grading criteria for the project were clear.	SA	A	D	SD
20. The feedback offered by the advisor was related to the grading criteria.	SA	A	D	SD
21. The advisor encouraged me to participate in cultural activities.	SA	A	D	SD
22. The advisor provided useful information concerning local customs.	SA	A	D	SD
23. The advisor made me aware of the health issues unique to the host culture.	SA	A	D	SD
24. The advisor made me aware of the safety issues unique to the host culture.	SA	A	D	SD

² Note that for this item a 'STRONGLY AGREE' response is a **NEGATIVE** response. When computing the score for this dimension the values for the various response positions should be reversed.

(i.e., SA = 1, A = 2, D = 3, SD = 4)

(back page of survey form shown on page 1)

1. Describe things your advisor did that promoted your learning during your IQP:

2. Describe any area in which the advisor needs to improve:

3. Describe what you could have done to improve your learning:

4. Other:

(endorsed by the WPI Faculty, May 16, 1996 for a 3-year period)

ROLES AND RESPONSIBILITIES OF ADVISORS FOR WPI RESIDENTIAL PROJECT CENTERS

The role of faculty at WPI's off-campus residential project centers is unique in the world of education. This role includes, of course, all of the usual academic project advising functions, such as guiding students through background preparation, execution, and final presentation of the work, evaluating results, and certifying degree requirement completion. Most of this work, however, is done far from the resources and campus support system usually provided for advisors and students. As a result, the responsibilities of a project center advisor transcend strictly academic roles, and to varying degrees may encompass those of the Dean of Students, Development Officer, University Relations Officer, Admissions Officer, and Student Counselor. The experience of spending seven or more intense weeks in a challenging new environment with a group of selected students whose capabilities are expanding daily can be the teaching highlight of an academic career.

There are three general objectives in a project center operation:

1. To provide students with an effective educational experience which enhances their academic, cultural, communication, and organizational abilities;
2. To develop the reputation of WPI by providing project sponsors with high-quality solutions to their problems; and
3. To enhance the professional development of WPI faculty through participation in this unique educational endeavor.

Since much is at stake for both the students and the advisor at a residential center, it is important for both student and faculty participants to be aware of their roles and responsibilities. This document describes the roles and responsibilities of the project center advisors.

Roles and Responsibilities

1. Introduction

This document is intended to provide guidelines for faculty serving as on-site project advisors for the WPI off-campus residential project centers. It identifies the roles and responsibilities which faculty will be expected to assume when they are chosen for this assignment. These roles and responsibilities are in some cases well beyond the duties normally associated with on-campus project advising, because of the following challenges:

- On-site advisors are typically the sole representative of the Institute in dealing with students, project sponsors, and any local agencies and individuals;

- On-site advisors may have to address unexpected academic, personal, logistic, health, safety, and legal issues in a responsible and timely manner;
- Advising a seven-week project is distinct from advising multi-term projects, requires careful preparation and imposes certain obligations on the project advisor; and
- Projects conducted in an environment and culture (and possibly language) which may be unfamiliar to students and advisor may include special preparation, both for students and advisor, to ensure the quality of the academic experience for the students and preserve the integrity and reputation of WPI and its programs.

2. On-Site Advisors' Role in Project Preparation

- 2.1 PQP Advising:** Single-term projects typically include a Pre-Qualifying Project (PQP) of at least 1/6 Unit in which students conduct preliminary research, formulate project methodology, and prepare a project proposal. On-site advisors are expected to administer the PQPs as part of the advising assignment. They should become familiar with the students, the projects, the project sponsors, and any relevant history of the project center operations and locale. On-site advisors should articulate clearly their expectations to students and provide an assessment of the PQP consistent with these expectations. Specifically, advisors should identify the level and types of analysis, methodologies, and focus on societal/technological interface expected in the final project.
- 2.2 Coordination with Liaisons and Sponsors:** Prior to the beginning of the projects, it is essential that the advisor, the students, the project center liaison(s), and the project sponsoring agencies have a mutual understanding of the nature and goals of each project, and the roles of the advisor, students, liaison, and sponsor in conducting and assessing the project. The advisor is expected to cooperate in this process by participating in meetings or other modes of communication with liaisons and sponsors, and conveying the nature of any such arrangements to the students when appropriate.
- 2.3 Other Preparation:** In addition to the PQP, students might be expected to complete site-specific preparation in language, culture, research methods, or other topics related to the project and project site. While this preparation is usually offered by the project center director and IGSD, the participation and cooperation of the on-site advisor is encouraged, in recognition that such preparation is an important component of the project.

Advisors should also be willing to take advantage of workshops, orientation sessions and other opportunities that will be provided by the IGSD to help prepare them to deal with the non-academic problems that may arise in off-campus advising.

- 2.4 Logistical Issues:** Depending on the nature of the site and projects, preparatory logistical issues related to the operation of the center may include matters of travel, passports and visas, housing arrangements, procurement of computer and other specialized equipment, and coordination with project sponsors, liaisons, and other agencies. While these issues are primarily the responsibility of the project center director and the IGSD, on-site advisors are expected to cooperate, and where appropriate, help to facilitate such arrangements.

3. Advising Responsibilities On-Site

The successful completion of a 1-Unit project in a single term depends upon appropriate preparation, careful planning and scheduling, steady progress by the students, timely advising and feedback by the advisor, and regular communication and coordination among all involved parties. Accordingly, the following advising guidelines are proposed for on-site advisors:

- 3.1 Advisors are normally expected to be at the project center site **for the duration of the project center operation for that term**. This period of time is nominally 8 weeks, but can vary from site to site.
- 3.2 Advisors should generally be available to students **on a daily basis** during the week, and should meet with each project group **at least once or twice weekly**. This may require some evening availability, depending upon students' schedules working with liaisons and sponsoring agencies.
- 3.3 It is expected that, except for reasons of emergency, advisors will not be absent from the project center for more than two days at a time other than weekends. In any event, advisors should provide students with means for contacting the advisor or some other WPI representative willing to assume responsibility for operation of the center whenever the advisor will be absent for more than two days.
- 3.4 Toward the end of the term, as deadlines approach, advisors should be available on evenings and weekends as necessary.
- 3.5 Advisors should regularly apprise students of the advisor's assessment of their progress, and should promptly review and return written report drafts.
- 3.6 Advisors are expected to require students to complete projects within the single term.
- 3.7 Advisors should maintain sufficient contact with on-site liaisons and sponsors to be aware of their perspectives on the goals and progress of the projects. Typically, about four meetings with each sponsor are likely to be necessary.
- 3.8 While the advisor has the final authority and responsibility to determine the conduct of the project and the advice given students as to its content, the advisor should strive to maintain good relations with liaisons and sponsoring agencies, and work to avoid any misunderstandings which could jeopardize students' experiences or WPI's external relations.
- 3.9 Final, formal, on-site oral presentations are an important element for each project center. The advisor should inform students early on of this important facet of their project experience, and assist them as necessary in preparing and rehearsing the presentations. Invited guests would normally include all appropriate liaisons, sponsors, officials, and alumni. This is an extremely valuable experience for the students, brings the project into focus, and can bring considerable visibility and recognition to WPI's local efforts.
- 3.10 Advisors are expect to observe the Project Grading Guidelines approved by the WPI Faculty on May 5, 1994.

4. Other Roles and Responsibilities On-Site

- 4.1 Advisors should be prepared to exercise reasonable judgment and prompt action in response to any issues which arise regarding students' health and well-being, including any medical, safety-related, personal, financial or legal difficulties which may be brought to the

advisor's attention. In particular, advisors should immediately seek professional advice and/or assistance in the event of an emergency.

- 4.2 Advisors may be called upon to represent the Institute in matters relating to student housing, student behavior, and relations with liaisons and project sponsors.
- 4.3 Advisors are expected to help maintain good relations between WPI and liaisons, sponsors, and other local entities, and where possible and appropriate, to cultivate new relations with prospective project sponsors and other agencies.
- 4.4 Advisors are expected to encourage and facilitate opportunities for students to take advantage of the cultural experience afforded by the off-campus site and to assist the IGSD in making students aware of cultural differences, or other local conditions or laws that might create difficulties.
- 4.5 Advisors are strongly encouraged to take advantage of opportunities for promotion of WPI at the project center site. These opportunities could take the form of enhanced relations with local alumni, student recruitment efforts (with assistance from the WPI Admissions Office), and student placement efforts (with assistance from the Career Development Center).

5. Follow-up Responsibilities

- 5.1 Advisors are expected to prepare and submit a report to the Director of the Global Studies Program (IGSD Co-Chair) and the Project Center Director describing the experience at the project center, including assessment of projects, housing, and other logistical arrangements, description of dealings with liaisons, sponsors, and other agencies, lists of new contacts made or opportunities identified, and general recommendations for the project center. This report should be received during the term following the advising assignment.
- 5.2 Advisors are encouraged to participate in follow-up activities associated with the site, including any student "re-entry" programs, program assessment, training/assistance for future advisors, and the recruitment and interviewing of students for future projects.