

General Education Study Group on Reflective Practitioners
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Members: LaRhee Henderson, Maura Lyons, Ronda Menke, Kathleen Richardson, LouAnn Simpson, Sue Wright, and Lon Larson, chair

Our Charge

The purpose of the overall project was to determine ways of becoming more intentional in achieving student outcomes within the Drake Curriculum. Study groups were established to identify pedagogical/content models that could serve Drake Curriculum faculty in teaching to achieve the student outcomes drawn from the University's mission statement and its explication. This particular study group was to investigate pedagogical models and evaluation rubrics that achieve the mission statement outcomes relating to "reflective practitioners". These outcomes included:

- *Demonstrate mastery of content in at least one disciplinary or interdisciplinary body of knowledge. (II-B-1)*
- *Use the breadth and depth of their educational experiences to reflect on their professional activities and the consequences for the larger society. (II-C-1)*
- *Push the boundaries of current knowledge and current practice in their fields. (II-C-2)*
- *Act to maintain professional practices that are consistent with their ethical judgment and stewardship responsibilities. (II-C-3)*
- *Demonstrate the capacity to raise questions about the relationship of their profession to ethical and civic issues. (II-C-4)*

More specifically, the group's objectives were to: address the minimum requirements for senior capstone experiences within majors; explore how capstones can apply, construct, and communicate knowledge within the context of the discipline; and investigate possible "general education" requirements of the disciplinary capstone (if any).

Capstones in General

The goals and expectations assigned to capstones differ across institutions, as do the components or activities included within a capstone. A recent survey, when asking about the goals of the capstone, listed these as alternatives:¹

- Promoting the coherence and relevance of general education
- Promoting integration & connection between general education and the major
- Fostering integration and synthesis within the academic major
- Promoting integration and connections between the academic major and work world
- Explicitly and intentionally developing skills or competencies that are incidentally developed in the curriculum (e.g., leadership)
- Enhancing awareness of key personal adjustments in the transition from college to post-college life
- Improving career preparation and pre-professional development
- Enhancing preparation and prospects for postgraduate education
- Promoting life planning concerning issues that will be encountered in adult life

The same survey listed the following as possible components of a senior capstone:

- Thesis
- Major project
- Oral presentation
- Internship
- Employment
- Service learning / community service
- Alumni involvement / networking
- Explicit consideration of graduate school
- Final exam
- Portfolio development
- Group project
- Work shadowing
- Educational travel
- Use of career center
- Leadership training

¹ Henscheid JM, Breitmeyer JE, Mercer JL. Professing the disciplines: an analysis of senior seminars and capstone courses. National Resource Center for the First-Year Experience and Students in Transition, University of South Carolina, 2000.

Background on Capstones at Drake

The Senior Capstone has been a component of the Drake Curriculum since its inception in the 1990s. It was retained, essentially unchanged, in the curriculum revision of 2001. The Drake Curriculum capstone is currently described as follows:

Senior Capstone. The Drake Curriculum requires that each student complete a Senior Capstone in each major field of study. Capstone experiences allow each student to demonstrate the capacity to bring information, skills, and ideas acquired from the major and various areas in the Drake Curriculum to bear on one significant project. Capstone experiences are designed by individual departments and interdisciplinary programs.

From the beginning of the Drake Curriculum, much autonomy has been given to the majors and academic programs in designing their capstone experiences. In contrast to the attention given to first year seminars, the capstone has received little University oversight – or support. The responsibility for implementing the capstone portion of the Drake Curriculum has fallen to the individual majors.

In 2004, a University Task Force on Academic Excellence focused on the senior year experience. Based on focus groups of students and other available data, it concluded, “It is clear that the Capstone Experience at Drake is inconsistent in character and quality.” The Task Force recommended the capstone be regarded as an important and central component of the undergraduate program. It further recommended that goals and guidelines be developed to encourage “integrated capstones, that are interactive and problem-based ... that engage students ‘where they are’ — i .e., in ways that involve doing something that is directly relevant to their academic and vocational objectives”.

(The portions of the Task Force Report pertaining to the capstone are included in the Appendix.)

The Study Group's Process and Work

Describing and Fostering Reflective Practitioners

One of the study group's first tasks was to clarify the primary focus of its efforts – the “reflective practitioner”. In a brainstorming exercise, group members identified the following as characteristics of a reflective practitioner:

- An integrated and usable knowledge of the discipline
- Aware of responsibilities as professionals to society
- Able to move back and forth between “dispassionate observer” and “informed participant” (elements of Sullivan’s concept of “practical reasoning”)²
- Displays social consciousness
- Integrity in practice; ethical; virtuous (fair, courageous, compassionate)
- Broad perspective that goes beyond the technique of the discipline – considers the interaction between the discipline and the greater whole
- Leader, mentor – and follower
- Commitment to excellence
- Intelligent skepticism (critical thinking)
- Curiosity; being a life-long learner

After this brief delineation of attributes of a reflective practitioner (i.e., learning outcomes), the study group sought to identify means to enhance the acquisition of these the skills and dispositions by students. In this endeavor, the group was guided by these questions:

- How can we help our students realize that they not only have the tools to get their first jobs out of college, but the skills to make a difference, to continue to grow and to shape the world around them? (macro-level question)
- How can the capstone can best promote reflective practice and professional responsibility? (This question became the primary focus of the group's work and this report.)

² Sullivan WA. A life of the mind for practice: professional education and the liberal arts. Available at www.carnegiefoundation.org/PPP/seminar.htm (accessed 5 September 2005)

- Can the characteristics of the “reflective practitioner” be developed solely in the capstone, or are explicit, intentional programs in the sophomore and/or junior years required?
- Would a “senior experience”, or other activities beyond the academic capstone, be useful in enhancing reflective practice?
- What are the respective roles of the major and the general education curriculum in fostering the skills and attitudes of reflective practice?
- Should ethics – and other key components of reflective practice – be taught “across the curriculum”?
- Are there rubrics or learning models for developing professional responsibility, reflective practice, or related dispositions or attitudes?

Other Capstones of Interest

Many capstone programs were reviewed. Three were deemed to be especially relevant to Drake: Wagner College, Portland State University, and Southern Illinois University at Edwardsville. Their capstones are described more fully in Appendix 2.

The Study Group’s Recommendations

The group presents three recommendations: two dealing with the capstone (its administration and its content) and one dealing with other programs to enhance reflective practice.

Recommendation #1: The Study Group recommends that the capstone become more of an all-university activity, with responsibility for the capstone shared by the university and departments.

A. (Sharing responsibility for goals and design.) The university should be responsible for establishing the overall goals and expectations of the capstone experience (see Recommendation #2), while each academic major and program continues to be responsible for designing the activities and requirements of its capstone.

B. (University & department support.) The university should provide support to the departments in enhancing their capstones. The university should support the capstones as it has supported the first year seminar program. This support may include workshops and faculty development programs, opportunities for capstone instructors to share experiences, financial resources for supplies required in capstone projects, and keeping the student-to-faculty ratio low in capstone courses.

Within departments and academic programs, designing activities for the capstone and assessing student performance should involve most – if not all – of a program’s faculty members, rather than being assigned to one or two faculty members.

C. (Prior approval.) In order to encourage greater consistency among University capstones, the University Curriculum Committee should review and approve capstone courses/experiences in a manner similar to the current process of approving courses for Areas of Inquiry (AOIs).

D. (Assessment.) The university and departments should share responsibility for assessing the outcomes of the capstones. As academic programs experiment with approaches to accomplish the capstone goals (detailed below), the effectiveness of those efforts must be assessed. The university and departments should cooperate in this endeavor. Assessing the performance of individual students in a capstone lies with the faculty of the academic program.

E. (Dissemination of capstone “results”.) To emphasize – and increase – the significance of the capstone, the Study Group recommends that the university consider declaring a time period (e.g. 3-5 days) near the end of spring semester as “capstone days”. During this time, public presentations of capstones would take place. The sessions could be open to all students and to the public. The public presentation provides an opportunity for the community to see the academic activities of our students and for younger students to better understand the outcomes of their education. The public display may also improve the quality of work. In addition, other means of disseminating the capstones should be considered (e.g.. eScholarShare) as well as sharing with other universities.

Recommendation #2: The Study Group recommends the capstone be a rigorous experience that intentionally addresses three elements: experiential learning, reflection, and integration of general education abilities.

A. (Experiential learning.) The capstone should include an “active, hands-on / minds-on concrete project or experience”. The experience (e.g. research, practice, performance) should allow the student an opportunity to work independently, make decisions, develop an idea, and/or demonstrate creativity; it is more than following a professor’s instructions or plans. The project or experience should result in a “product” that is available for review or public presentation. Ideally this presentation entails a written report and oral presentation. (The presentation of capstone projects is discussed below.)

B. (Reflection.) The capstone should include opportunities for reflection; students should be required to reflect on their capstone project and its implications. A reflective practitioner (student) is one who considers the social and disciplinary implications of his/her experiences and newly acquired knowledge. Reflection enables practitioners to revisit and revise the assumptions through which they understand their professional/ disciplinary experiences. Students are encouraged both in framing and executing the capstone project to think of it as an intervention within a larger professional / disciplinary and cultural context. Reflection can be enhanced through discussions and conversations with others and collaborative learning (e.g., working in teams, peer review and critique).

C. (Integrating general education.) The capstone should integrate general education abilities with the major. (The capstone may also serve to connect concepts within the major.) The capstone is the culminating experience within the Drake Curriculum. General education abilities that may readily fit with many capstones include (but are not limited to): writing and speaking, critical thinking, civic professionalism (engaged citizen), and ethics.

D. (Implementation.) Rather than prescribe specific means by which academic programs can incorporate these elements into their capstones, the Study Group recommends that majors and programs be given the flexibility to experiment. As departments design and assess their capstones, innovative and effective strategies will be disseminated to other departments.

Recommendation #3: The capstone cannot be the sole means to develop “reflective practice” abilities and dispositions. The Study Group recommends that the details and feasibility of three additional programs be investigated: ethics-across-the curriculum, a formal “senior experience”, and experiences to build connections throughout the Drake Curriculum.

A. (Ethics-across-the-Curriculum.) Ethical behavior is an important (but not the sole) element of the reflective practitioner. Other universities have adopted versions of “ethics across the curriculum” in which faculty in all disciplines, through development programs and other means, acquire the skills needed to address cases of “applied ethics” in their classes. A similar program should be considered at Drake. The Study Group believes that a multi-disciplinary center or unit should be assigned responsibility for coordination, faculty development, and community involvement.

B. (Senior Experience.) A “senior experience”, with planned activities and opportunities beyond the capstone, should be considered. In addition to disciplinary proficiency, the senior experience might include such elements as internship or practicum experience, community service, ethical applications, career planning, and networking with alumni. The senior experience would involve several units on campus: student life, academics, professional and career services, and alumni affairs.

C. (Making connections.) Students should be encouraged – and assisted – in making connections throughout the curriculum. The capstone should not be the only opportunity for students to think in an integrated way about their education. For instance, perhaps themed courses could be offered that involve multi-disciplinary projects, or perhaps the areas of inquiry within the Drake Curriculum could be coordinated or sequenced so as to more clearly make connections among disciplines.

Appendix 1. Report of the Task Force on Academic Excellence, 2004 (Excerpts)³

A specific focus of the group discussions was the Capstone Experience. A majority of the students enjoyed the capstone experience as illustrated by the following:

- For some it represented a culmination of their academic efforts; the capstone helped to “tie things together;” it was a “cumulative experience.”
- Students liked capstones that are practical and emphasize hands-on application of what they have learned.

Other students, however, expressed less satisfaction

- Problematic descriptions included:
 - “The capstone was busy work; the main product of the course was a large paper.”
 - “It is memorization. We do not learn. We do not think.”
 - “The focus of my capstone is on memorization, which is bad...My capstone does not apply to my future at all. I thought it would be an integration of my previous classes.”
 - Some felt that their capstones were general and did not offer any apparent real world application.
 - One student felt that the capstone experience was completely separate from what the student had done and learned in classes at Drake.
- Some students thought that there was a discrepancy between the amount of work required for various capstones; others commented that there was no way to judge which capstones required more work and that any comparison would be subjective.
- A few students indicated that they did not know that they had a capstone. Two students indicated that they were vaguely familiar with the capstone experience. One explained that an advisor signed off on the requirement, while the other said, “I took a seminar course. I did not know that it was the capstone. Advising would have been helpful.”

Students offered various suggestions for ways to improve the capstone:

- Create capstone experiences that both represent a culmination of academic activities and offer clear practical applications of knowledge (e.g., preparing a brochure for a company).
- Provide capstone experiences that link academic training to the “real world” and are applicable to future careers.
- Promote early and ongoing communication between students and advisors regarding the capstone experience. This should include early planning to ensure that these courses meet students’ needs rather than simply complete a requirement.
- Make capstones pertinent to students’ academic majors.
- Develop ways to increase interaction among students regarding their capstone experiences (e.g., presenting information, sharing about the planning process).

³ Report of Drake University Task Force on Academic Excellence: A Focus on the Senior Student Experience, 2004.

- Provide more structure for the capstone rather than broad ideas. Additional structure would also assist students with dual majors.

Recommendations of the Task Force

Capstone Experience: It is clear that the Capstone Experience at Drake is inconsistent in character and quality. Student comments suggest that faculty in some cases do not take this requirement seriously. The Task Force has noted that less specific guidance has been provided for development of capstone experiences than occurred with the first-year seminars. There may have been an assumption that faculty had a clear sense of what the senior experience, and the capstone, should be since the senior year tends to be seen as more focused on the major(s).

- A set of goals, guidelines and other statements that will provide assistance in examination of the capstone experiences should be developed. Central to such guidelines should be encouragement to:
 - Create integrated capstones, that are interactive and problem-based.
 - Create capstone experiences that engage students "where they are"—i.e., in ways that involve doing something that is directly relevant to their academic and vocational objectives.
 - Mark the importance and centrality of the capstone experience to the undergraduate program, perhaps by assigning more credit hours to the courses.
- Using these guidelines, each academic program should focus on examination of their capstone experiences during the next year.
- Faculty need to be more conscious of the goals of the capstone so that they can do more effective advising. Working with other faculty across the university to generate a discourse and exchange about what various programs are offering will provide a way to model effective capstone experiences.
- Facilitating and assessing development of the capstone experience should be a top priority of the Director of the Drake Curriculum for the next several years.
- Work toward these objectives should begin with Self-Study Committees on "Student Learning and Effective Teaching," and "Acquisition, Discovery, and Application of Knowledge" and the University-wide articulation of programmatic outcomes in fall 2004. Capstone specific planning should begin in spring 2005

Appendix 2. Descriptions of Other Capstones

Wagner College⁴

The Wagner Plan culminates in the final year with The Senior Program and the third Learning Community. As the ultimate goal of the Senior Program, all students bring together the breadth of a liberal education and the depth of specialized knowledge into a real-world applied practice.

Within the major, the Senior Learning Community consists of two classes. The first is a substantive course which explores issues within the field of study. This capstone course is crucial to a final understanding of the major. Added to this in-depth study is a field-based internship or applied learning component such as a significant original research project. In this way, students put into practice advanced principles of their major.

Wagner goes even further, however, to combine this fieldwork with a course in which students within the major come together to discuss and reflect upon their experiences. We think this added component, the Reflective Tutorial, is the key. Through discussion of a wide variety of experiences or the sharing of findings and research techniques, students gain a deeper understanding of their experiences. And they develop a more sophisticated understanding of the complexity and depth of their major through this intensive fieldwork, problem solving and critique. For all students, this is the capstone experience, the culmination of their learning and both the continuation of their first three years at Wagner and the beginning of their experiences beyond the college.

The Senior Program brings together the fundamental tenets of The Wagner Plan. Challenging course work in a broad curriculum infuses the study of the major field with more significance. "Learning by Doing" allows students to not only learn, but put this knowledge into practice in important field experiences. The Wagner Plan is designed to be transformative, to lead students not only to a greater understanding of what they are learning, but to an understanding of how they will take this knowledge and affect the world around them.

Portland State⁵

Senior Capstone is the culmination of the University Studies program. Capstone courses are designed by Portland State University's faculty to build cooperative learning communities by taking students out of the classroom and into the field. In Capstone courses, students bring together the knowledge, skills, and interests developed to this point through all aspects of their education, to work on a community project. Students from a variety of majors and backgrounds work as a team, pooling resources, and collaborating with faculty and community leaders to understand and find solutions for issues that are important to them as literate and engaged citizens.

⁴ www.wagner.edu/wagnerplan/seniorprog.html

⁵ www.pdx.edu/unst/capstone.html

Southern Illinois University – Edwardsville⁶

Each senior is required to complete a Senior Assignment that demonstrates proficiency in the major and academic breadth commensurate with SIUE's general education expectations. This requirement arose from the University's belief that the ability to integrate a general education perspective into one's academic discipline is an essential mark of a University educated person. Each Senior Assignment (SRA) is a scholarly engagement between a senior student and dedicated professor(s) that results in a product. As such, SRAs make the curriculum visible and, therefore, assessable. SRAs foster creativity and self reliance by encouraging each student to gain control over his or her own educational experience, to become something more than a skilled classroom stenographer.

Rather than asking students to be consumers of knowledge, we ask them to participate in its development in discussions, in essays, in laboratories, in studios, on stage, and in countless other ways. As the culmination of an SIUE education, the Senior Assignment has as an objective that students trace through in a given field the process by which ideas are created, refined, and expressed, either through their own inventive work or by replication of the work of someone else. Whether through an experiment, the exploration of text(s), quantitative or historical analysis, use of one of the arts, or by means of a practicum, the goal is that each senior gain and reveal through the SRA a baccalaureate-level understanding of how an idea, a work of art, a mathematical proposition, or a scientific conclusion comes into being, and to demonstrate this understanding via the transferable baccalaureate skills. In order for student learning to be assessed, students themselves must be participants in, rather than witness to, the activity of mindfulness.

---after H. Copeland, 1990

Each academic major has its own version of the Senior Assignment that may involve, for example, library inquiry, laboratory experiments, field study, or artistic creativity. Therefore, a given SRA may culminate in an artistic performance, technical design, public speech, written thesis, gallery presentation, or a combination of these with other forms of expression. Individual SRAs differ, but they share in common a challenge to each SIUE student to achieve individual academic excellence. This is what distinguishes baccalaureate education at SIUE.

⁶ www.siu.edu/~deder/assess/sra.html