

Roanoke Pathways: *From experience to experiential learning*

Roanoke College's Quality Enhancement Plan
September 5, 2011

On-site Visit
October 11-13, 2011

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Letter from the President

In *College Learning for the New Global Century* (AAC&U, 2007) the National Leadership Council for Liberal Education and America's Promise contends that the 21st century is a time for leadership and action: "American education calls for a far-reaching shift in the focus of schooling from accumulated course credits to building real-world capabilities." Roanoke College is committed to the education of resourceful, informed, and responsible citizens and believes that such an education can only come from broad, deep, and experiential education programs that bestow the liberal art's love of learning and the desire to use what is learned in ethical living, engaged citizenship, and service for the general good (see Roanoke College's Strategic Plan and *Freedom with Purpose: A liberal arts education at Roanoke College*).

In the fall of 2009 the College implemented an innovative core curriculum designed to increase student engagement and integration of knowledge across a breadth of disciplines. We also continue to strengthen our majors and other curricular programs that encourage depth of study through creation of new faculty lines, new majors, and a more effective program evaluation process. We are now poised to implement an experiential learning initiative to take students beyond theory and concepts known primarily in abstraction to the tangible reality of "doing learning." The Pathways Program will place students in authentic, real-world contexts and prompt them to draw deliberate connections between knowledge gained through traditional modes of learning and that gained through these real-world experiences. Through intentional planning for the experiences, critical, guided reflection during the experiences, and public showcasing at the culmination, students will test and refine academic knowledge and skills, experience personal and professional growth, and be better prepared to engage productively in our common civic life.

To ensure success of the Pathways program, the college administration and board of trustees is committed to providing necessary administrative and financial support through and beyond the five-year implementation phase. In addition to combining appropriate existing budgets, new funds have been identified and others will be made available as needed. As the program expands through increased student and faculty participation, so too will the level of support, thus maintaining a standard of quality consistent with the College's vision of becoming a model of experiential learning.

Our core curriculum, ensuring high-quality majors, and the Pathways program are three college-wide initiatives to strengthen the breadth, depth, and experiential aspects of our curriculum, and provide the impetus for cultural change at the College. In particular, the Pathways program has the potential to foster a new campus ethos in which faculty, students, and staff create and participate in a transformative educational environment that is rooted in the traditional liberal arts and prepares students for the future—not for a particular profession, but for a life of informed, engaged, and ethical citizenship.



Michael Maxey
President of the College

I. Executive Summary

“Wisdom comes by experience” (Aeschylus, *Agamemnon* 177).

Like the chorus in Aeschylus’ *Agamemnon*, we recognize that experience is an effective teacher; most of us simply wish that what we gain from our experiences would become evident more quickly—that we would not have to wait, e.g. to realize what our years in graduate school taught us about ourselves and that it would not take our students so long to recognize the value and implications of our courses. Although experience itself may eventually lead to knowledge, carefully constructed and observed experience has the potential to yield not only more accurate knowledge but also to bring knowledge to the fore more quickly than experience unaided by contemporaneous reflection.

Roanoke College’s Quality Enhancement Plan centers on a College initiative, the **Pathways Program**, which is designed to improve student learning by enhancing the quality and visibility of College-sponsored opportunities that require students to apply disciplinary knowledge in a real-world setting, that is, **Experiential Learning**. The Pathways Program will build upon a solid foundation of campus involvement in these activities by implementing a comprehensive program with a consistent set of expectations that will produce high quality experiential learning activities and a support structure that will adequately train, fund, and attract participants.

The Pathways Program objectives and learning outcomes were developed through critical interaction with theoretical literature and with recognized best practices in experiential education. Roanoke College’s emphasis on educating the whole person and recent scholarly work on assessment of experiential learning were also brought to bear on our program design and led to an understanding of the potential for experiential learning to be transformative for students in multiple spheres of their lives.

The Pathways Program will be under the leadership of a Director of Experiential Learning, who will oversee a new Office of Experiential Learning, its staff (one full-time professional coordinator and part-time student assistants), and the Experiential Learning Advisory Group. Pathways projects will encompass **Research, Creative/Artistic Works, Internships, Service-Learning, and Study Away** experiences. The office will train faculty and staff who wish to supervise Pathways projects, will advertise these opportunities to students, will disburse grant money to support projects and compensate supervisors, and will help coordinate the public showcasing of these experiences. The program’s budget will increase over time from a modest \$24,000 per year in the pilot year to a level of \$275,000 per year by Year 5. In brief, the program will have clear leadership, a sufficient infrastructure, and a healthy budget at its disposal.

Developed over the last two years with the active involvement of various campus constituencies—faculty, staff, students, alumni, parents, and the Board of Trustees—this program is also an experiment in effecting campus change. The program calls for voluntary adoption of its quality enhancements; in return participants will receive training, as well as logistical and monetary support

appropriate to each project. The implementation of this program and its effectiveness at improving student learning outcomes will be carefully measured and used to improve the program and to convince more faculty and staff to adopt these quality standards.

The Pathways Program is an ambitious undertaking with the potential to impact not only student learning outcomes specific to experiential learning, but also the wider campus ethos, including student attitudes and classroom dynamics. We are excited to embark on this project and to witness its impact on Roanoke College.

II. Process Used to Develop the QEP

Broad-based participation in developing the QEP was essential for ensuring support for and involvement in the program. As such, we have tried to involve all key constituents in every aspect of the development process. Whether through surveys, service on the topic selection or development committee, or participation in forums, faculty from across campus, staff, students, alumni, and board members have either played an active role in the development of the QEP or had several opportunities to contribute to the discussions. It is anticipated that this broad-based involvement will continue as we begin to implement the program.

A. Work of the QEP Topic Selection Committee

In fall 2009, the President and the Dean constituted the QEP Topic Selection Committee, which began meeting Monday, October 26, 2009. This committee represented faculty from across all divisions, staff, and students:

Heath Brown, *Assistant Professor of Public Affairs*
Denise Greene, *Assistant Professor of Psychology*
William Greer, *Associate Dean for Student Success Initiatives*
Jane Ingram, *Professor of Mathematics and Computer Science*
Melissa Lacombe, *Associate Director of Financial Aid*
Jan Lynch, *Professor of Psychology*
David Moxley, *Class of 2011*
Bruce Partin, *Professor of Theatre*
Leonard Pysh, *Associate Professor of Biology*
Leah Russell, *Associate Dean and Registrar*
Katherine Schlimmer, *Class of 2011*
Matthew Tripp, *Class of 2011*
Ned Wisnefske, *Professor of Religion*

Over the course of the fall semester 2009, the committee had extensive discussions about possible topics using Derek Bok's book *Our Underachieving Colleges* (2006) as a framework to facilitate discussions. Furthermore, to help identify possible topics for the QEP, the committee analyzed a variety of institutional reports (including the *2009 Alumni Survey Report*, the *2007 Graduating Student Survey Report*, the *2009 NSSE Data*, the *2008 Climate Survey Report*, the *2008 Programmatic Initiatives Report*, and the *2002 Student Culture Report by Shuh and Whitt*). By the end of the semester the committee had developed a list of topics for further consideration and had also identified sources of data to support the selection of each of these topics:

- Advising: engage students through a quality advising experience
- Civic Awareness: enhance knowledge of national/local events
- Global Awareness: enhance knowledge of world events
- Intercultural Competence: promote student appreciation for diversity
- College Climate: foster a community of learning and personal integrity
- Commuter Experience: integrate commuter students into the College community
- Residence Experience: integrate the residence experience with academic life

- Experiential Learning: provide unique learning experiences including internships, undergraduate research, independent studies and service-learning
- Study Abroad Experience: provide and support opportunities for international study
- Community Service: contribute to the welfare of the community
- Post-graduation Success: prepare student for life after college
- Scientific Reasoning: develop student ability to understand and use scientific methods
- Information Literacy: enhance student ability to effectively access, process, and evaluate information
- Interpersonal Skills: develop student ability to interact effectively in a variety of settings
- Creativity: foster student ability for imaginative and independent expression
- Moral Development: promote principles of morality and values

Surveys of Faculty, Staff, Students, and Alumni

In spring 2010, the committee refined the topics and developed two surveys to determine the support for each of the topics by the key constituencies (the faculty, the staff, and the students, as well as three recent alumni classes). One survey consisted of a list of 16 possible topics for consideration. The committee purposefully excluded several topics (critical thinking, written communication, and oral communication) because they were already being addressed by the new Intellectual Inquiry curriculum. Each respondent was asked to choose up to five of the possible topics that s/he thought would “enhance [his/her/the] college experience”. The second survey consisted of a similar list of topics but asked the respondent to “rate the College’s effectiveness” in each of the given areas using a Likert scale ranging from “very ineffective” to “very effective” (see www.roanoke.edu/QEP for the *Topic Selection and Effectiveness Surveys*).

Half of the faculty, staff, and three years of alumni (Classes of 2009, 2007, and 2005) received an electronic invitation to complete the topic survey, while the other half was invited to complete the effectiveness survey. Each of these groups had about two and a half weeks in which to complete and return their surveys. All data from these groups were collected electronically. For the topic survey, there were 79 faculty respondents, 71 staff respondents, and 65 alumni respondents. For the effectiveness survey, there were 77 faculty respondents, 44 staff respondents, and 44 alumni respondents. (Response rates for the topic survey: 50.8% faculty/staff and 10.1% alumni. Response rates for the effectiveness survey: 42.0% faculty/staff and 6.8% alumni.)

The student surveys were completed on paper in the general education sections offered, the sample included in the analysis represented 56% of the student body. A total of 531 topic surveys were received from the students, of which 50 were not included in the analyses due to the respondent having chosen more than six topics (27% of student population). There were 531 effectiveness surveys received, all of which were included (29% of student population). Figure 1 shows the results of the topics survey in which the percentage of respondents choosing a particular topic are plotted for each of the four constituent groups.

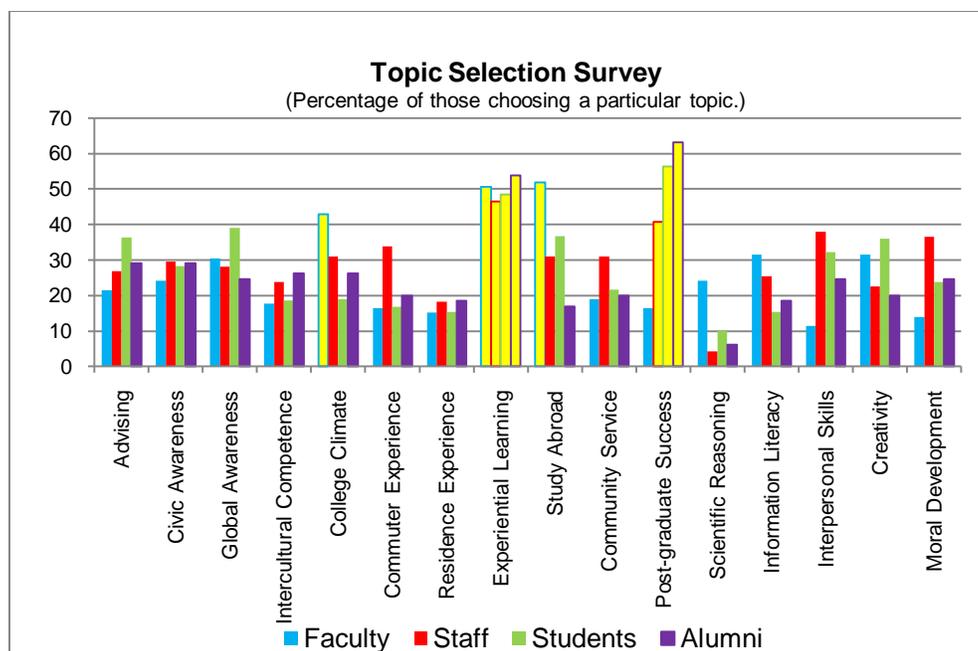


Figure 1. Topic survey data represented by group. Topics chosen by more than 40% of the respondents in a group are indicated in yellow.

Believing that community support for a new initiative was essential for its success, the committee relied heavily on the Topic Selection Survey data and consequently recommended for final consideration the four topics chosen by at least 40% of one of the groups. These topics were **Experiential Learning** (chosen by 50.6% faculty, 46.5% staff, 48.4% students, and 53.8% alumni), **Post-graduate Success** (chosen by 16.5% faculty, 40.8% staff, 56.4% students, and 63.1% alumni), **College Climate** (43.0% faculty, 31.0% staff, 18.9% students, 26.2% alumni), and **Study Abroad** (51.9% faculty, 31.0% staff, 36.8% students, and 16.9% alumni). At this point the Effectiveness Survey was not used to disqualify any topics from consideration.

Clarifying Potential Topics

Having identified these four topics, members of the committee formed small working groups and further analyzed the institutional reports (Alumni Survey Report, Graduating Student Survey Report, etc.) to supplement survey data. Each group wrote a report which can be found at www.roanoke.edu/QEP. The reports begin with a brief overview, then include a more extensive discussion and presentation of the institutional data each working group found that supported a need in that area.

Follow-up Survey of Faculty and Staff

The four topics were presented to the College's SACS Leadership Steering Committee, an appointed group including the President, Dean, Vice President for Information Technology, department chairpersons, senior staff, and faculty charged with the oversight of the reaccreditation process. After the topics were presented the committee decided a follow-up survey was needed. During the final weeks of the spring 2010 the follow-up survey was created and administered to Roanoke College faculty and staff. The purpose of the survey

was to determine for each of the four areas the perceived impact on student learning and the predicted involvement by faculty and staff—two essential ingredients for the success of a new program. Each respondent was asked to rate the impact on student learning for each possible topic using a Likert scale ranging from “very low” to “very high”. The second question asked participants to rate how much they saw themselves getting involved in the program scaled from “not at all” to “a lot”. Additionally, open ended responses for each topic asked for input on the types of activities/projects which should be included and concerns about the feasibility of developing the QEP on this topic (see www.roanoke.edu/QEP for *Follow-up Survey of Faculty and Staff*). A total of 116 faculty (93 were tenure-track) and 55 staff completed the survey.

Figure 2 shows the compiled percent responses for each rating scale category for the question of potential impact on student learning. If the top two categories are summed (“very high” and “high”), the above average percent responses for each topic are: **Experiential Learning: 88.9%, Post-Graduate Success: 57.9%, Study Abroad: 80.7%, and Campus Climate: 75.3%**. Figure 3 shows the compiled responses for the question about how much participants saw themselves getting involved. Once again, if the top two categories are summed (“a lot” and “a good bit”), the above average percent responses for each topic are: **Experiential Learning: 51.2%, Post-Graduate Success: 26.4%, Study Abroad: 35.1%, and Campus Climate: 44.1%**.

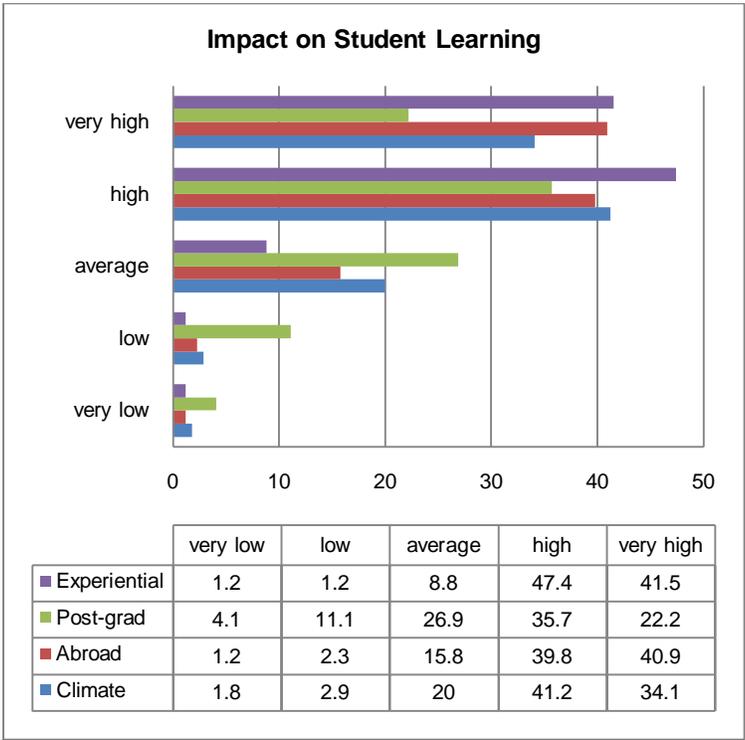


Figure 2. Impact on student learning: Category response percentages by topic.

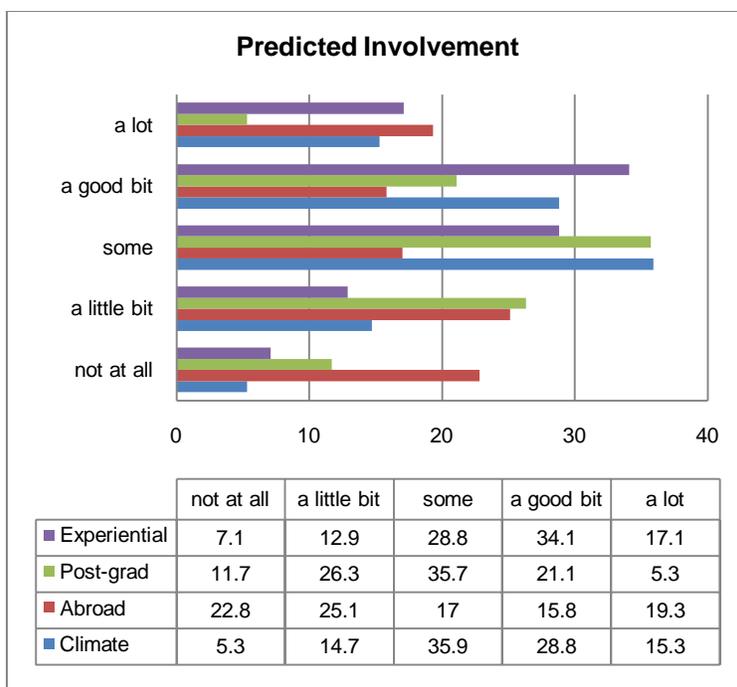


Figure 3. Predicted involvement: Category response percentages by topic.

Experiential Learning received the highest level of support in both of these surveys. While the earlier Effectiveness Survey did not highlight this area as particularly ineffective, a subsequent student survey (see below) indicated access to information about experiential learning opportunities is a serious campus problem that needs remedying (see section II.B).

Final Selection

The final step in the topic selection process was to present all available information to the President of the College. During the summer 2010 and after careful consideration, President Maxey selected **Experiential Learning** as our QEP topic for several reasons:

- Experiential learning clearly has community support.
- Experiential learning is a focus within the College’s strategic plan.
- A new experiential learning program is feasible since it will build on an existing strength of the College.
- A new experiential learning program has great potential to differentiate us from other schools in a way that will help our reputation and student learning.

The President further expressed a desire to **include Study Abroad under the umbrella of experiential learning** since it garnered the support of the community and has a high potential impact on student learning.

B. Work of the QEP Development Committee

In fall 2010, the Dean constituted the QEP Development Committee, which began meeting September 9, 2010. Once again, the composition of the committee reflected the desire to have broad-based involvement in the process, while at the same time be faculty driven:

Jennifer Berenson, *Associate Dean of Academic Affairs & Administration*
Kimberly Filer, *Director of Institutional Effectiveness & Assessment*
Richard Grant, *Professor of Physics*
Christopher Lassiter, *Assistant Professor of Biology*
Chad Morris, *Assistant Professor of Sociology*
Leslie Murrill, *Associate Professor of Education*
Lisa Warren, *Associate Professor of Fine Arts*

The committee began meeting on a weekly basis with the goal of having a draft of the plan in place by the end of the spring 2011 semester. During the fall semester most of the committee's time was spent gathering data on the types of experiential learning opportunities currently available to students at Roanoke, attending conferences, reviewing literature, best practices, and national standards, and narrowing the focus of the plan to have the greatest impact on student learning. By January 2011, the committee had developed a template for a comprehensive plan to strengthen experiential learning across campus. The committee also drafted a preliminary budget for the administrative oversight and financial support for the program.

Departmental Focus Groups

During the first two weeks of the fall 2010 semester, the committee met with each academic department. The primary purpose of these meetings was to gather information on the types of experiential learning opportunities offered within departments, the opportunities considered most beneficial for our students, and the obstacles or perceived obstacles that stand in the way of faculty offering more of these experiences. A secondary purpose was to review the methods used to maintain quality standards and the supervision structure in place. To prompt the discussion, a focus group protocol following Allen's Structured Group Interviews (2004) was developed. The following questions were asked of participants:

- In your department, what experiential learning opportunities are **most** beneficial for your students? Is this required? What are your department's strengths in this area? Where would you like to improve?
- To increase offerings of an experiential nature and improve the quality of the student experience what forms of support would provide the most effective incentive for increasing faculty involvement? Faculty incentives and/or training and development?
- During and/or after the student experience, what do you require of students? Does personal reflection play a part? Are there common learning outcomes for the programs? How do you measure/evaluate student learning?
- What is your supervision structure for experiential projects in your department? What are the strengths and weaknesses of the operation?

At the end of each meeting participants were asked to rank in order of preference the group's list of opportunities most beneficial for our students, and also the list of forms of support deemed most effective for increasing faculty involvement.

Sifting through the data obtained from the departmental focus groups, several important points were worth noting.

- Experiential learning means different things to different people. Depending on the discipline, experiential learning definitions ranged from visiting a local museum as part of a course to a year-long research project under the supervision of a faculty mentor. There was not a common understanding of a college-wide definition of experiential learning.
- A common theme was that faculty needed more time to create and/or enhance opportunities and supervise students in these types of experiences.

The challenge for the committee would be to develop a program which would have the greatest benefit to students in all disciplines and provide the necessary support structure needed for students and faculty from different disciplines. As a follow-up to these meetings, members of each department were contacted and requested to provide any available guidelines, criteria, templates, etc., used in the supervision of students participating in experiential learning opportunities. The aim was to collect documentation on the methods used to ensure quality and assess student learning, and compare these methods with standards of best practice.

Narrowing the Focus and Initial Program Design

In consultation with the President and the Dean, the committee affirmed the President's recommendation to focus the emerging program on five main high-impact practices: **Research, Internships, Study Away** (which includes Intensive Learning travel and semester/year-long study abroad), **Service-Learning, and Creative/Artistic Works**. Although some institutions include artistic works under the umbrella of research, the committee felt that at Roanoke College these types of projects are distinct from research and are better served by being treated separately.

The development committee spent the majority of the fall semester carefully reviewing the literature on experiential learning models, looking at experiential learning programs at other institutions, and reviewing national standards on experiential learning. At this time the committee agreed upon a modification to Kolb's (1984) cycle of experiential learning along with the eight principles developed by the National Society of Experiential Education (see section III.B) as bases for our program. Adopting a systematic approach to improving experiential learning (see section III.B), the committee developed a program mission statement and objectives at this time as well, although these continued to evolve throughout the year as a result of ongoing feedback and discussion.

Each member of the committee researched one of the five areas extensively and developed a proposal for a program in that area, founded upon the common learning theory and NSEE principles, incorporating best practices, and fulfilling the overall program objectives. These reports can be found at www.roanoke.edu/QEP.

Faculty and Staff Forums

Beginning early in the spring 2011 semester, the development committee held a series of forums for faculty and staff to present elements of the plan. Each of the first five forums focused on one area of the QEP (research, internships, study away, service-learning, and creative/artistic works) and was designed to present a template for the program, gather feedback and input, and gauge faculty and

staff interest in being involved in implementing the program. A total of 83 faculty and staff participated in these forums representing 13 academic and several administrative departments. In general, feedback was positive with many participants eager to be involved; however, others expressed concern about the lack of detail in the plan. The following is a synopsis of the post-forum survey data:

How likely are you to get involved?			
	<u>Very Likely/Likely</u>	<u>Unlikely/Very Unlikely</u>	<u>Need to learn more</u>
Research	19	--	3
Internships	11	--	2
Study Away	9	--	--
Service-Learning	10	1	--
Artistic Creative	7	--	--

Questions participants still have about the QEP:

- How will staff be involved?
- What is the purpose/role of the central office?
- How will this affect how internships are graded?
- Will this be funded sufficiently?
- What are the details? (i.e., are there going to be “caps”, how will the assessment “look”, contact hour requirements, etc.)

Informed by valuable feedback and input from the forums, the committee worked the remainder of the semester refining the plan. By early April there was sufficient detail in the plan, including an approved budget, to justify an additional series of forums. Once again, five forums were scheduled with each focused on one area of the plan; invitations were extended to those who would likely be early participants in the implementation process. Feedback was generally positive and furthered program development by providing detailed information about student and faculty support needs.

Student Survey

Occurring at the same time as this series of forums, students enrolled in two sections of INQ 240 (the general education quantitative reasoning course) developed, administered, and analyzed a survey of student knowledge and perception of experiential learning on campus. The purpose of the survey was to address the following questions:

- Is experiential education part of the Roanoke College culture?
- Is experiential education information readily available?
- Why would students want to participate in experiential learning opportunities?

In consultation with their instructor and the Director of Institutional Effectiveness and Assessment, students constructed a series of questions designed to gather information on student knowledge and perception of experiential learning (see www.roanoke.edu/QEP for *Student Survey*). A total of 392 students participated in the survey with balanced representation by class (first-year, sophomore, etc.) and broad participation across disciplines. The following data was extracted from the survey results:

Is experiential education part of the RC culture?

Prior to enrolling at Roanoke College...

Was Experiential Learning a factor in your decision to attend Roanoke?

- Yes 5.6%
- Somewhat 17.1%
- Not Really 45.2%
- Never Heard of It 32.1%

As a student at Roanoke College...

Have you participated in an Experiential Learning activity while attending Roanoke?

- Yes 37.3%
- No, but I want to 36.7%
- Not Really 2.0%
- Never Heard of It 24.0%

Is experiential learning information readily available?

Have you ever tried to find information about Experiential Learning opportunities and 'given up'?

- Yes, I gave up several times 3.0%
- Yes, I gave up once 8.7%
- Didn't give up, but had to look around a lot 20.4%
- No, I was able to get info easily 14.3%
- I never tried 53.6%

To find out more about Experiential Learning opportunities, how likely are you to use the following resources? (% 'highly likely')

- Roanoke Website 56.0%
- My advisor 41.8%
- One of my professors 45.7%
- Classmates/other students 41.0%
- The professor I think teaches the activity 34.9%

Why would students want to participate in experiential learning opportunities?

Select the reasons you would be interested in Experiential Learning opportunities. (top 3 choices)

- Personal growth 89.5%
- Develop my resume 85.5%
- Get more from the college experience 80.6%

From a series of open-ended questions.

Suggestions for improving Experiential Learning at Roanoke College?

- 63% (146/231) suggested making the experiences well known.
- Sample responses:
 - “More information, less hassle.”
 - “I think the number one thing is to advertise it more and to reach out to freshmen and sophomores about it because if I would’ve known more about going abroad or volunteer opportunities I would have done a lot more at school.”
 - “Make it common and well known...”
 - “I would be very grateful if I could be made more aware of opportunities and if there was more support and encouragement from the college to access these opportunities. Honestly, I have no idea what resources are available to me.”

Overall the survey confirmed that although experiential learning is taking place on campus, it is not part of the campus ethos. Also, lack of easily accessible information on these opportunities is a major impediment to student involvement. Generally, students are not aware of what is available and have difficulty finding information. Students seem to recognize and value the benefits of these experiences but struggle to find the opportunities appropriate to their needs. The committee carefully considered these issues while developing the program.

Meetings with other Key Constituents

Over the course of a year, the development committee also met with many other members of the college community outside of Academic Affairs. These included Student Affairs, Admissions, Public Relations, Information Technology, Parent Advisory Board, Board of Trustees, and others. These meetings took the form of interactive forums and presentations, individual and group meetings, and informal conversations. The purpose was not only to inform the campus community of the initiative underway, but to seek input into how to best serve our students and develop a program in which appropriate college constituents play an active role.

Campus Luncheon

Feedback from the campus forum evaluations indicated a need for a final sharing of the comprehensive program with the faculty and staff. A luncheon for the entire campus community was held at the end of the spring 2011 semester to present the Pathways Program in its entirety. Faculty and staff from all areas of campus were invited. Over 70 people attended. Participants asked clarification questions about leadership structure, supervision of assessment, and how the program interfaces with existing programs on campus. The dialog informed the committee and the administration of areas needing clarification.

The College's campus-wide, inclusive approach led to identification of the program's topic and a course of action designed to garner support for and involvement in the program.

III. Identification of the Topic

Roanoke Pathways: From experience to experiential learning

A. Experiential Learning Opportunities at Roanoke College

Numerous experiential learning opportunities are currently available at Roanoke College. These opportunities include research, internships, study away (including Intensive Learning travel courses and semester/year-long study abroad), service-learning, and creative/artistic projects. Research and internships have had robust enrollments in recent years (approximately 200 students enrolled per year in each of these two areas), while the other areas are more in the beginning stages of attracting students. Some of these projects are connected to credit-bearing courses, while others do not carry academic credit.

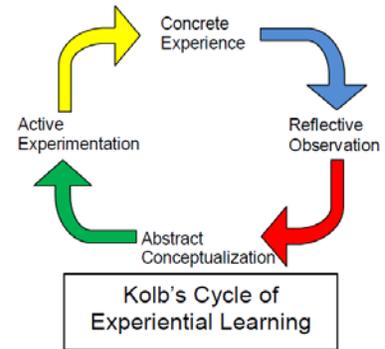
While many of the experiential learning opportunities on campus provide students with high quality experiences, standards across campus vary widely and the absence of quality control at the departmental and college level has resulted in an uneven quality of student experiences. As a result, one of the main aspects of the proposed program is to increase the quality of experiential learning opportunities through adoption of the best practices found on campus and in the wider academic community. The proposed program also addresses the need for the College to connect a broader range of students to these opportunities. Most Roanoke College students who take part in experiential learning have very high GPAs. In addition, many of these students are “super-users,” who take advantage of multiple experiential learning opportunities. While we do not want to discourage such active engagement in a variety of learning experiences, as a College we wish to see a wider distribution of students participating. Since research shows that experiential learning is often most beneficial to students who have not yet reached their academic potential (Kuh, 2008), the proposed program will provide support for broader student involvement in high quality experiential learning projects by raising visibility of experiential learning opportunities on campus and by increasing access to information about these opportunities through an enhanced web presence, a centralized office, and updated advising materials and training.

B. Review of Relevant Literature

Learning Theory

Firmly grounded in learning theory, the Pathways Program has the potential to enhance the educational quality of experiential learning opportunities. Building on the foundational work of his experiential learning predecessors including Dewey, Lewin, and Piaget, Kolb’s seminal work, *Experiential Learning: Experience as the Source of Learning and Development* (1984), specifies a model of learning that integrates experience, perception, cognition, and behavior. In keeping with this practice, we developed a learning model consistent with our experiences at Roanoke College by first considering the key elements of Kolb’s model: concrete experience, reflective observation, the formation of abstract concepts, and the testing of new knowledge through active experimentation (Kolb et. al., 1984).

Kolb describes this process as cyclic, with student learning beginning at any of the four steps. This intentional observation of one's experience and modification of one's behavior is what distinguishes simply having an experience from experiential learning. Kolb later revised his model and took this into account the criticism that his original model's directional arrows seem contrived and fail to account for the possibility that students may move back and forth between steps (2005).



Roanoke College's application of Kolb's theory will include all four steps (concrete experience to active experimentation) and will acknowledge interplay between steps, e.g., reflective observation and abstract conceptualization. A summary of the four elements follows:

A **Concrete Experience** is authentic—that is, a real world activity that is neither contrived nor controlled. It requires students to apply academic content and methods and should be substantial in duration and depth.

Reflective Observation requires more than superficial reflection; rather it entails realistic self-appraisal, analysis of activities or events, and discussions about what has been learned with supervisors or peers. Students should articulate this reflection in some systematic way so that they are able to build on that experience through abstract conceptualization and/or active experimentation.

Abstract Conceptualization occurs when students place their experiences in a context informed by relevant disciplinary literature, theories, and activities. This process promotes learning and growth through effecting changes in attitudes and behavior (i.e., by planning what to do differently as they continue to be engaged in the concrete experience).

Active Experimentation occurs when ideas and insights developed through reflective observation and/or abstract conceptualization result in new behaviors that in turn become the object of informed reflection, allowing the cycle to begin again.

Our experiential learning model goes beyond Kolb's by aligning his model with the College's focus on educating the whole person (see our mission statement) and with current research on assessing students experience from a variety of perspectives (Ash & Clayton, 2009). Learning and growth occur at multiple interconnected levels that are valuable and deserve conscious attention. Our model acknowledges and promotes student development at three distinct levels by encouraging reflective observation, abstract conceptualization, and active experimentation not only in the area of academic content, but also personal/professional development and societal engagement. This process will allow students to make this experience meaningful on multiple levels of their lives:

Academic Content: As students participate in an experience they will reflect on the relationship between knowledge gained through the classroom and knowledge gained through this authentic experience, and will seek additional academic information to improve their ability to engage in the ongoing experience.

Personal/Professional Growth: As students participate in an experience, they will reflect on what they have learned about themselves and their professional aspirations and will seek further personal/professional improvement (e.g., work habits, leadership skills), to guide their ongoing experience.

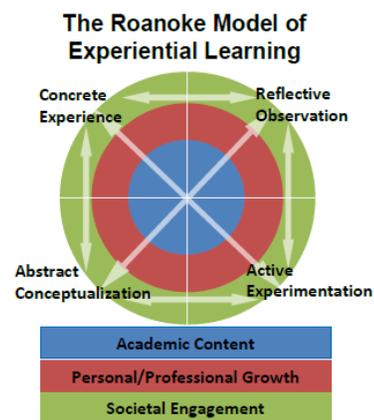
Societal Engagement: As students participate in an experience, they will reflect on the ways in which their activity/topic impacts a larger community and the role they themselves might play in this area in the future and will seek additional information/resources to inform their ongoing experience.

The key to making an experience meaningful is guided student reflection. Reflective activities facilitate student growth in all three areas of development (academic, personal/professional development, and societal engagement) as well as connection between the areas. Literature on reflection in experiential learning (Bringle & Hatcher, 1999) indicates reflective activities should do the following:

- Clearly link the experience to course content and learning objectives;
- Be structured in terms of description, expectations, and criteria for assessing the activity;
- Occur regularly during the semester so that students can develop the capacity to engage in deeper and broader reflection;
- Include feedback from the instructor about reflection activities so students can improve critical analyses and develop their reflective practice; and,
- Invite students to explore, clarify, and alter their values.

The Roanoke Model of Experiential Learning is represented graphically below with the three areas of development superimposed onto Kolb's model. During the learning process, students may move between elements of the circles addressing the four elements of Kolb's model at any of the three levels of development. In this way students are free to explore new content, reflect on personal/professional growth, and discover their place in the larger community in a natural, student-driven manner.

For example, after performing the first experiment of a scientific research project on nanotechnology, a student might reflect on content-specific questions related to the



experiment and her prior coursework. After placing her experiment in this wider context (lab skills, properties of matter), she may return to the lab better able to carry on the next stage of the project. At the same time she might also consider whether she has the personal discipline and attention to detail to succeed in this field and thus whether or not she is inclined to choose lab-based research as a vocation. With this greater awareness of her own strengths and weaknesses, she may return to the lab better equipped to succeed. Reflection on potential social impacts of nanotechnology (e.g., in medicine) may impel her to seek out new research, coursework, and career paths. An experiment that may have seemed limited in its application may take on new dimensions for the student, bringing renewed energy, enthusiasm, and passion for her own contribution. Eventually, through the course of the whole experience, if properly guided and prompted, a student has the potential to consider all elements of the overlapping circles and to make the experience meaningful in multiple areas of her life.

High Impact Practices

The 2007 Association of American Colleges and Universities (AAC&U) Liberal Education and America’s Promise (LEAP) report identified ten “high impact” educational practices, or active learning practices, that increase students’ rates of success. More than half of these high impact educational practices have been classified as Experiential Learning (Ayers, 2010). There is considerable overlap between these high impact educational practices and the components of Roanoke’s Pathways Program:

High Impact Experiential Learning Practices (Kuh, 2008, pgs. 9-11)	Location in the Pathways Program
Undergraduate Research	Research
Diversity/Global Learning	Study Away
Service-learning, Community-based Learning	Service-learning
Internships	Internships
Capstone Courses and Projects	Creative/Artistic and Research

Based on his research on student engagement and retention, Kuh (2008) demonstrated the effectiveness of these learning practices. He found that students who participated in high impact activities had significant increases in self-reported intellectual and personal gains. Also, they reported significantly more deep approaches to learning in high impact practices than in other practices. As Kuh (p.14) noted, “Deep approaches are important because students who use these approaches tend to earn higher grades and retain, integrate, and transform information at higher rates.”

Other research has linked high-impact practices to positive student outcomes. Student/faculty research has been shown to be effective in promoting student retention—especially for those students at greater risk for college attrition (Jones, Barlwo, & Vellarejo, 2010; Gregerman, Lerner, von Hippel, Jonides, & Nagda, 1998). Internships have been associated with higher grade point averages, greater retention and graduation, as well as gains in academic knowledge (Sax et al., 1999). Participation in service-learning has been linked to increases in academic knowledge, grade point average, retention, and graduation (Sax, et al.,

1999), higher course grades and student satisfaction (Brownell & Swaner, 2010), and critical thinking (Eyler & Giles, 1999). Study abroad has been shown to increase associative language skills in a second language (Jiminez, 2010), as well as sense of purpose, service to others, and personal growth (Miller-Perrin & Thompson, 2010).

While high impact activities can be effective in promoting many valued outcomes, those changes are not automatic and do not occur in a vacuum. Kuh (2008, p.9) recognized that many campuses utilize these practices, but he found that on almost all campuses utilization is “unsystematic, *to the detriment of student learning*” [emphasis added]. Ayers (2010, p. 10) noted that these activities have arisen “without much attempt to coordinate them with one another or to connect them to the traditional learning.” Though activities identified as high-impact may produce the desired outcomes, the probability of those outcomes occurring and the strength of the effects are increased when a systematic approach is taken. This requires intentional engagement of students, student interaction with peers and faculty, and consistent opportunities for critical reflection throughout experiential learning activities (Clayton-Pedersen & Finley, 2010).

The variability of high-impact and experiential activities requires a systematic and comprehensive approach be taken to assess their effectiveness and the effectiveness of their implementation. Numerous benefits have been attributed to these activities but always with the caveat “if done well” (Kuh 2008, p.14). When the desired benefits are not achieved, it is a “failure of implementation” (Clayton-Pederson & Finley, 2010, p. 53). The QEP Development Committee heeded this warning and has proposed a systematic approach to program coordination, assessment, and evaluation.

Best Practices in Experiential Education

Systematic implementation of theoretical approaches ought to be guided and tempered by the experience of others practiced in the field. As a result, the Pathways Program will take seriously the best practices advocated by the National Society for Experiential Education (NSEE), which recommends standards of best practice underlying experiential learning pedagogy. The standards of practice put forth by NSEE include eight principles facilitated by the supervisor and aimed at supporting the learner in a relationship of mutual responsibility.

The *Eight Principles of Good Practice for All Experiential Learning Activities* include: (1) a purposefulness to connect the experience to knowledge (intention); (2) preparation and planning; (3) an authentic context; (4) reflection throughout the process to connect the experience and learning; (5) orientation and on-going training; (6) a feedback loop for monitoring and continuous improvement; (7) assessment and evaluation; and, (8) recognition of progress and accomplishment through culminating documentation and celebration of learning (acknowledgement). [Source: National Society for Experiential Education. Presented at the 1998 Annual Meeting, Norfolk, VA http://www.nsee.org/about_us.htm, retrieved 6/13/11]]

The development committee used the NSEE Principles of Good Practice as a reference throughout project development. Key elements of the Pathways Program (see section IV.A) are based on these standards.

Facilitating Change

Roanoke College recognizes change is not instantaneous, nor is it easy; in fact it is a process that is often arduous and fraught with difficulties. A review of the research related to evaluating change in education revealed the Concerns Based Adoption Model (CBAM) developed by Hord, Rutherford, Huling-Austin, and Hall (1998) who wrote, “the single most important factor in any change process is the people who will be most affected by the change” (p. 29). Although program support and infrastructure are important to the successful implementation of the new experiential learning program, the faculty, staff and students involved in the program are the most important factors in successful implementation (Hord et al., 1998). Hall and Hord (2011) noted in the context of higher education institutions, the success of any new program is dependent upon the change being supported and implemented by the faculty of the institution.

CBAM represents the conceptual framework for facilitation of change. A graphic representation of the conceptual framework appears in Figure 4 below. Although no framework can capture the full complexity of change, the key components labeled in the figure represent the main elements of our assessment of change during implementation of the Pathways program.

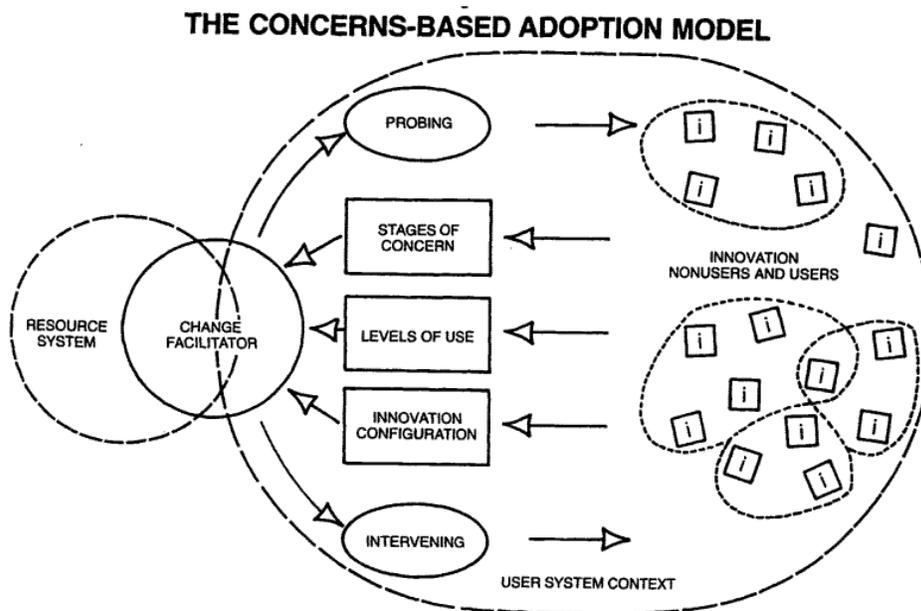


Figure 4. The Concerns-Based Adoption Model (CBAM). From: *Change in Schools: Facilitating the Process* (Hall & Hord, 1987, p. 12)

Using CBAM we will measure the movement of Pathways users and nonusers to becoming change facilitators by monitoring Stages of Concern, Levels of Use, and Innovation Configuration by the individual users. The results and trends in these measures will inform further information probes needed and interventions for successful programmatic support.

Stages of Concern

“The Stages of Concern dimension addresses how teachers or others perceive an innovation and how they feel about it” (Hall & Hord, 1987, p. 13). The seven Stages of Concern are listed below in Figure 5. The stages range from early, faculty-focused “self” concerns to logistical “task” concerns to “impact” concerns focused on the effectiveness of the program practices. The Stages of Concern Questionnaire (see *Appendix II*) will be administered to faculty and staff annually at the beginning of the academic year. Results will be analyzed and shared with the Experiential Learning Advisory Group to inform support actions for the coming year.

Stages of Concern

Focus	Stage	Description
Impact	6: Refocusing	The focus is on exploration of more universal benefits from the innovation including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.
	5: Collaboration	The focus is on coordination and cooperation with others regarding use of the innovation.
	4: Consequence	Attention focuses on impact of the innovation on student in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.
Task	3: Management	Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are of utmost importance.
Self	2: Personal	Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.
	1: Informational	A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.
Unrelated	0: Awareness	Little concern about or involvement with the innovation is indicated.

Figure 5. Stages of Concern. From: *Change in Schools: Facilitating the Process* (Hall & Hord, 1987, p. 60)

Levels of Use

The second measure of change, Levels of Use, addresses what a user (teacher or staff) is doing or not doing in relation to best practices in experiential education. The Levels of Use goes beyond whether a faculty member is participating or not in the program, it asks: At what level are best practices being used throughout the experience? The Levels of Use as described by Hall and Hord (1987) are included in Figure 6 below. The Levels of Use in relation to best

practices in experiential education will be measured using additional survey questions on the annual administration of the Stages of Concern Questionnaire (see *Appendix II*). Results will be analyzed and shared with the Experiential Learning Advisory Group to inform support actions for the coming year.

Levels of Use

Level of Use	Description
6: Renewal	State in which the user reevaluates the quality of use of the innovation, seeks major modifications or alternatives to present innovation to achieve increased impact on students, examines new developments in the field, and explores new goals for self and system.
5: Integration	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on students within their common sphere of influence.
4B: Refinement	State in which the user varies the use of the innovation to increase the impact on students within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.
4A: Routine	Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.
3: Mechanical	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than student needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
2: Preparation	State in which the user is preparing for first use of the innovation.
1: Orientation	State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.
0: Nonuse	State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

Figure 6. Levels of Use. From: *Change in Schools: Facilitating the Process* (Hall & Hord, 1987, p. 84)

Innovation Configurations

The third diagnostic dimension of the model is a more recent addition to CBAM. It emerged from early CBAM research that revealed that hundreds of participants claimed to use a classroom innovation but the activities or structure of the innovation varied. “The name of the innovation may have been the same, but the operational forms had different components and variations” (Hall & Hord, 1987, p. 108). The Innovation Configuration Checklist is a strategy that identifies the basic components of the innovation and the variations of use within each component. The Pathways project will implement standards of best practice; therefore, the Innovation Configuration Checklist titled “Pathways Project Components” will be developed and used by the leadership team when evaluating project proposals for inclusion into the program. Proposals will be evaluated using a rubric with the components: learning contract, reflection, and final product/showcasing. A draft of a possible Innovation Configuration Checklist is included in *Appendix III*; however, the leadership team will likely make revisions for evaluating project proposals in year one.

C. Mission of the Pathways Program

The Pathways Program will be a significant step in achieving Roanoke College's overall mission to prepare students for responsible lives of learning, service, and leadership by promoting their intellectual, ethical, spiritual and personal growth. A key component to fulfilling this mission will be forging a deliberate connection between knowledge gained through traditional modes of learning and experiences designed to put that knowledge into practice. Though experience itself is valuable, when set in a larger context of reflection, experience can be transformative. As such, **Roanoke College's Pathways Program seeks to improve student learning by enhancing the quality and visibility of experiential learning opportunities currently available to our students: research, internships, service-learning, study away, and creative/artistic works.** Through these quality enhancements and increased visibility of experiential learning opportunities we hope students will view experiential learning as a key component of their Roanoke College education. Participation in these experiences holds the promise of improving student attitude, classroom dynamics, and overall campus climate.

D. Overarching Objectives

To achieve this mission, Roanoke College's Pathways Program will:

- improve the quality of the wide array of experiential learning opportunities currently available to our students through education about and training in the use of best practices, and supporting participation through:
 - grants to students for research materials and travel;
 - stipends and grants to supervisors who adopt best practices; and
 - removal of logistical barriers to participation; and
- increase program visibility of these opportunities for a wider range of students.

E. Desired Student Learning Outcomes

The success of the Pathways Program will be measured by its ability to achieve the desired student learning outcomes. The theoretical foundation of the program is a holistic integrative perspective on learning that combines experience, perception, cognition, and behavior. To assess students' learning connected to experience, this model calls for ongoing guided reflection through an iterative process of experience, self-appraisal, and idea formation. The Pathways Program specifies the model further to include academic knowledge, personal/professional growth, and societal engagement. Experiential learning theory and research on assessment and best practices have led us to following student learning outcomes:

Students participating in the Pathways Program will:

1. Critically reflect on experience from academic, personal/professional, and civic perspectives.
2. Articulate learning gained through experience.
3. Demonstrate effective reasoning or problem solving skills.
4. Collaborate effectively.
5. Synthesize knowledge in a final project or showcase.

IV. The Pathways Program

The first objective of the Pathways project is to enhance the quality of experiential learning opportunities on campus. At Roanoke the prerequisites and expectations for most experiential learning opportunities have been set by individual departments. Trying to improve quality through a process that would require the faculty to approve an untested program would probably not be successful. As a result we have decided to implement Pathways as a voluntary program that will run parallel to existing experiential learning opportunities. The success of these quality enhancements in improving student learning will be carefully assessed. In the future, if the program is demonstrably successful, the faculty may consider turning these enhancements into college-wide requirements. In the meantime, a supervisor of an experiential learning project will have the option of including the proposed enhancements in a project and having it approved as a Pathways project. Approved projects will benefit from resources designed to support the student, the project, and the supervisor (see below). The Pathways Program will be administered through the Office of Experiential Learning and be supervised by the Director of Experiential Learning (see section V.A and B).

Other experiential learning projects on campus will be promoted by the Office of Experiential Learning, and will continue to be supported through the current stipend models.

A. Key Elements of the Pathways Program's Quality Enhancements

The key elements of the Pathways Program's quality enhancements are based upon the learning theory articulated above and the eight principles of best practices identified by the National Society of Experiential Education (NSEE). These required enhancements are best understood as occurring in three primary stages, all of which will be assessed and evaluated (NSEE principle #7): *pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing.*

Pre-Experience Preparation and Planning (NSEE principles ##1-3)

Prior to the beginning of the concrete, authentic experience and in consultation with their supervisor/mentor, students will develop a learning agreement incorporating program learning outcomes as well as individualized learning outcomes as appropriate to the student's learning goals. These outcomes focus on applying academic knowledge, achieving personal/professional growth, and understanding this activity/issue in relation to the greater community. This intentionality represents the purposefulness that transforms the experience into meaningful learning. The learning agreement also serves to set boundaries, roles, and expectations, and ensures that both student and mentor/supervisor enter the experience with sufficient foundation to support a successful experience. At the same time, the agreement should be flexible enough to allow for adaptations as the experience unfolds. See *Appendix IV: Sample Learning Contract.*

Ongoing Guided Reflection (NSEE principles ##4-6)

From the initial stages of planning a project (above) to a post-project public showcasing (below), students should engage in ongoing guided reflection, that is, the productive interplay of reflective observation, abstract conceptualization, and active experimentation that is at the heart of the Roanoke Model of experiential learning. This guided process helps students find meaning in their experiences and achieve growth in all three areas of development (academic content, personal/professional development, and societal engagement). Students will be prompted to reflect in each of these three categories, examining their experience to enhance their knowledge and articulate their learning. The assessment model used for critical reflection and sample prompts are included in section VI. *Evaluation and Assessment*.

Post-Experience Public Showcasing (NSEE principle #8)

An important step in the process of experiential learning is articulating the meaning(s) derived from an experience to a broader community. This public showcasing allows students to draw together their reflections throughout an experience and to talk about the ways in which that experience has transformed them on multiple levels. Pathways Program students will be required to participate in research fairs, international travel day, and other forums to share their experiences to the Roanoke College community. In addition, students will be encouraged to use their e-portfolio to develop a multi-media resume, documenting these high quality experiences for potential employers and graduate schools. For a sample rubric see *Appendix V: Showcasing Rubrics*.

Despite the variety of experiences encompassed by the Pathways Program, these enhancements are flexible enough to be adapted to all types of projects, and will lead to overall higher quality and multi-faceted experiences for our students. The paragraphs below are intended to be brief summaries of how the Pathways Program will function in each of the five areas. Details of project supervision and support can be found in the subsequent sections.

Research: Students will engage in research projects under the supervision of qualified faculty or staff. Students will be guided through the stages of pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing by their supervisor. Public showcasing is likely to take the form of a paper or poster presentation. The student can seek financial support for the project (up to \$500), and the faculty member will receive a \$400 stipend for overseeing the project.

Internships: Students will complete an internship under the supervision of qualified faculty member who will oversee all interns within that department; this cohort model under the direction of an Internship Coordinator is already in use in select departments on campus with high levels of success in mentoring interns. Students will meet both individually with the supervisor and with the cohort of interns to be guided through the stages of pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing. Public showcasing may take multiple forms, ranging from individual presentations to students within the department to online blogs. The student can seek financial

support for expenses related to the internship (up to \$100), and the internship coordinator will have a budget to support relationships with internship sites. The internship coordinator will receive reassigned time based on the total number of interns in a given year.

Service-Learning: Students will participate in a group service-learning experience under the supervision of qualified faculty or staff. Students will be guided through the stages of pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing by their supervisor. Public showcasing may take multiple forms, ranging from group presentations to the college community to an online course blog. The supervisor can seek financial support for expenses related to the experience (up to \$500) and will also receive a stipend of \$400. As an area of growing interest, Service-learning will benefit from establishment of a new position –the Service-Learning Liaison– designed to support Service-learning supervisors and make this area more visible on campus (for more on this position, see section V.A).

Study Away: Students will participate either in an Intensive Learning travel course or in a semester- or year-long study abroad program under the supervision of a qualified faculty or staff member. Students in Intensive Learning travel courses will be guided through the stages of pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing by their instructor. Public showcasing may take multiple forms, ranging from group presentations to the campus community to an online course blog. The instructor can seek financial support for expenses related to the course (up to \$500), and will also receive a stipend of \$400. The supervisory and monetary support models for students who study abroad for a semester or longer has not yet been determined; this aspect of the program will come online in Year 5 (Phase 2 of Study Away).

Creative/Artistic Works: Students will participate either in group or individual creative/artistic projects under the supervision of a qualified faculty or staff member. Students will be guided through the stages of pre-experience preparation and planning, ongoing guided reflection, and post-experience public showcasing by their supervisor. Public showcasing is likely to take the form of an exhibition or performance of the work. Students involved in an individual project can seek financial support for the project (up to \$500); supervisors of group projects can seek financial support for related expenses (up to \$500). Supervisor will also receive a stipend of \$400.

Attention to and support for supervision of experiential learning projects will be essential to the program's success since the learning model is dependent upon skilled supervisors guiding their students through the stages of preparation and planning, guided reflection, and public showcasing. The Office of Experiential Learning will train supervisors and will provide special logistical support for showcasing of student projects.

B. Organizational Structure

The Director of Experiential Learning will report to the Vice President & Dean of the College. This level of oversight reflects the priority of Experiential Learning—

on par with the depth provided by majors and the breadth provided by the General Education program—within the College's strategic plan and will ensure that the program continues to receive appropriate funding and support. Additional support for the Director of Experiential Learning within the senior academic staff will be provided by the Associate Dean for Academic Affairs and Administration in logistics and budgeting, by the Director of Institutional Effectiveness & Assessment in the areas of assessment of learning outcomes and program evaluation, and by the Associate Dean and Director of the Center for Learning and Teaching in the area of advising. The Pathways Program will also require the coordination not only of multiple offices within Academic Affairs, but also with Student Affairs, Enrollment Management, Information Technology, and Resource Development.

The Director will oversee an office staff that includes a Professional Coordinator and student assistants. The Director will also chair the Experiential Learning Advisory Group, which will include both faculty and staff members. Supervisors of individual Pathways projects (e.g., Internship Coordinators, faculty offering Service-Learning courses or Research opportunities) will be expected as part of their participation in Pathways projects to provide required data and documentation. The Director will also work closely with key members of Student Affairs, Enrollment and Admissions, Information Technology, and Resource Development.

The proposed administrative structure has certain advantages. It draws on the passion and expertise of a faculty member who continues to be actively engaged in teaching and intentionally creates lines of communication between all relevant offices on campus. A potential problem with this structure is that such an interconnected program may need the authority of an Associate Dean (e.g., on par with the leadership of General Education) to succeed. In the third year of the program we will evaluate the success of this administrative model and make structural changes as necessary.

C. Support for Pathways Projects

Both the quality of student experiences and access to them will be increased through targeted monetary support for experiential learning projects that meet the Pathways Programs requirements. High quality experiential learning projects benefit from support in a variety of areas, for example, materials, travel, housing, and supervision. The Pathways Program will offer three general areas of support: grants/support to students who participate in individual Pathways projects, grants to supervisors to support Pathways group projects, and stipends/grants to supervisors of Pathways projects. All three areas of support are necessary to improve the quality of projects/experiences for our students. For purposes of support, individual Pathways projects include research projects and creative/artistic works pursued by a single student, internships, and semester/year-long student abroad; group Pathways projects include creative/artistic works in which multiple students participate, travel courses, and service-learning courses/projects.

Student Support

Experiential Learning opportunities are often hampered by lack of funds to support a project at level that has the potential to give students a high quality experience. Some students are not always able—or at least not easily able—to obtain the materials needed for research or to present their research at a conference. For other students even gas money to travel to an internship site is a financial burden. Summer is a great time for students to engage in experiential learning; unfortunately the cost of summer tuition and housing is often a barrier to our students' ability to take advantage of summer opportunities. The Pathways Program will help students more easily obtain what they need to make the project viable and successful.

All students involved in an **individual Pathways project** will be eligible to:

- Apply for funds to support their project. For example, students in internships might apply for gas money; creative/artistic students might apply for art supplies; research students might apply for money to purchase research materials or to pay for travel to a library/archive. This pool of money will not be unlimited; awards will not be guaranteed; merit, financial need, and timeliness of application will be important criteria for success.
- Apply for discounted summer tuition and/or housing. A limited number of housing spaces would be available each summer.
- Access video cameras and other technological support for creating an e-portfolio that will document their experiences and accomplishments while at Roanoke College.

All students involved in a **group Pathways project** will be eligible to:

- Access video cameras and other technological support for creating an e-portfolio that will document their experiences and accomplishments while at Roanoke College.
- Apply for discounted tuition for a second Intensive Learning course if it has been approved by the Pathways Program.

Project Support

Supervisors of Pathways group projects will be eligible to apply for funds to support the projects. A supervisor might apply for funds for transportation to a service-learning site, materials needed for construction of theatre sets, or a special outing/opportunity during a travel course. A limited pool of money will be available each year and grants will be competitive.

Supervisor Support

Stipends

Implementing these quality enhancements will require faculty to invest time in training, project planning, and guided reflection. In recognition of these new responsibilities, faculty and staff supervisors of Pathways Research and Creative/Artistic projects, and of Intensive Learning and Service-Learning courses in the first five years of the program will receive a stipend of \$400 to acknowledge the extra work involved in designing and supervising these high quality projects and to reward them for furthering the educational goals of the college in this area. A minimum of 30 hours of work is anticipated for these projects. (In Year 5 this stipend model will be reconsidered to determine its long-

term viability, and alternative grant options will be considered.) Internship Coordinators will be compensated through release from one teaching assignment (i.e., 1 RT, or reassigned time) based on a ratio of 20 students to 1 RT; see further discussion below in section V. *Actions to be Implemented.*) Faculty supervisors of Pathways projects will also be eligible to apply for a Pathways Reassigned Time grant.

Pathways Reassigned Time Grants

At Roanoke College, working closely with students on projects which connect knowledge gained in the classroom to experiences designed to put that knowledge into practice is part of our responsibilities as faculty. As such, we should expect all faculty to play a role in creating new or enhancing existing experiential learning opportunities for our students. For faculty who commit more substantial time and effort to the creation and supervision of these opportunities, support in the form of reassigned time will be available through a competitive application process. Pathways Reassigned Time (PRT) grants are similar in nature to the Roanoke College Faculty Scholar Awards (http://roanoke.edu/A-Z_Index/Academic_Grants/Internal_Funding/Grant_Descriptions/Roanoke_Faculty_Scholar_Program.htm), but are designed specifically to promote faculty efforts to enhance the offerings of experiential learning opportunities at the College. Whereas the Faculty Scholar Award supports faculty in their scholarship, PRT grants recognize those faculty with a track record of providing high quality experiential learning opportunities for our students. Though use of this reassigned time need not involve student participation, it should have as its ultimate goal the creation of new or enhanced experiential learning opportunities (see *Appendix VI: Pathways Reassigned Time Grants* for more details).

D. Visibility of Experiential Learning

Connecting Students with Opportunities More Quickly

The second objective of the Pathways Program (section III.D) is to increase the visibility of and access to these activities on campus. Roanoke College already offers experiential learning opportunities in all five areas of Research, Internships, Study Away, Creative/Artistic Works, and Service-learning. The areas with the strongest involvement are Research and Internships; the other three represent areas for growth in student participation. However, the need for greater visibility applies to all. As was evident in the student survey data, a significant percentage of students reported having difficulty finding information about experiential learning opportunities and felt that a centralized location to find information about these opportunities would be of use.

While showcasing and project support—part of our quality enhancements discussed above—certainly will help both these objectives, another essential way to achieve greater visibility will be through establishing a dedicated space on campus where students who are considering doing an experiential learning project can easily find information about the different opportunities and begin the process of finding one that is right for them. Currently, students who are interested in obtaining an internship often have to make the rounds of multiple offices just to find the right person to speak with about starting the process of finding an internship. Likewise, students who wish to do research have a wide range of opportunities, but no easy way of knowing what that range is, how

opportunities vary by department, and what the different prerequisites and expectations are. A centralized office will provide streamlined access to this information and necessary application forms. In short, this location will serve as a much needed clearinghouse of information and advising for the student who is at the exploratory stage.

Connecting a Broader Range of Students with Opportunities

Connecting a wide range of students with experiential learning opportunities in college is dependent upon high quality, personal advising. While requirements for programs such as majors, minors, and general education can be easily summarized in the form of check sheets, advising is much more significant for experiential learning. Experiential learning includes both for-credit courses and non-credit opportunities, and at this point students are not required to participate in one to graduate from Roanoke College. In the absence of a college requirement in Experiential Learning, student awareness of these experiences is dependent on (a) the reputation that such experiences develop among the student body, and (b) the influence of thoughtful, timely, personal advising. Thus awareness of these opportunities by a broader range of students (not just those super-users with high GPAs) can also be facilitated through placing more emphasis on experiential learning in advising. Some of this targeted advising can take place during student visits to the Office of Experiential Learning, but experiential learning must become a vital part of regular advising beginning with a student's first semester on campus. This priority will require close coordination between the Office of Experiential Learning and the Associate Dean who oversees advising.

V. Actions to be implemented

As a complex program aimed at changing the overall culture of the College, the Roanoke Pathways Program necessitates strong overall leadership, implementation and monitoring of quality standards, and establishment of procedures for supporting and rewarding high quality student experiences. What follows is an outline of the key tasks to be accomplished throughout the period of implementation. As will be evident from the Timeline below (see section VII), these tasks will be accomplished over the span of six years (through AY2016-2017).

A. Appoint Key Leadership

Until now experiential learning at the College has been hampered by a lack of centralized leadership and fruitful coordination among existing leadership. To ensure its success, the Pathways Program will be overseen by a Director of Experiential Learning. The Director will work with coordinators in each of the five program areas and will supervise an Experiential Learning advisory group. In addition, a full-time professional staff person, with the help of student assistants, will run the program's day-to-day operations. The Director will report to the Dean of the College.

Director of Experiential Learning

The Roanoke Pathways office will be under the supervision the Director of Experiential Learning. An appropriate candidate for this position would be a

current faculty member who has a passion for experiential learning and recognizes its potential as a transformative college experience. This person would have a commitment to maintaining rigor in the implementation of the program and would be flexible in his/her interaction with supervisors and other campus leaders by understanding that the required quality enhancements can be achieved in multiple ways appropriate to each area and pedagogical style. In short, the Director will best be served by a management style that is inclusive rather than exclusive. This person would need to be well-respected by the faculty and staff, have demonstrated administrative skills, and be seen as fair, highly competent, and a visionary leader. The responsibilities and duties of the Director will include:

- maintaining current knowledge about experiential learning programs, activities, and best practices in the field of Experiential Education to ensure Roanoke's program is distinctive as well as competitive.
- developing, promoting, and maintaining Pathways experiential learning opportunities in conjunction with established offices and positions in the Experiential Learning areas (e.g., Director of International Education; Director of Faculty/Staff Research; Director of Career Services; Internships Coordinators; Service-learning Liaison; Director of Community Service); this will include coordinating workshops and development opportunities to assist faculty and staff in the creation and supervision of Pathways projects.
- supervising the Office of Experiential Learning, including the full-time professional staff person (see below).
- managing the budget for the Office of Experiential Learning, and seeking additional funding through grants and/or Resource Development sources.
- coordinating the Experiential Learning Advisory Group (see below).
- approving applications for Pathways projects and support.
- recommending PRT grant recipients to the Dean of the College.
- planning and developing, in conjunction with other office on campus (e.g., Admissions and Public Relations), promotional materials and a robust web presence about experiential learning intended for internal as well as external audiences.
- coordinating with the Associate Dean and Director of the Center for Learning and Teaching in the area of academic advising to ensure students and their advisors are giving serious and intentional consideration to incorporating experiential learning into the student's course of study.
- implementing and monitoring an assessment program, including learning outcomes and operational evaluation, and ensuring that formative and summative assessment is utilized for program improvement.

The Director of Experiential Learning will be identified in early fall 2011. This job description will be presented to the faculty and nominations will be solicited. The Dean of the College, in conversation with the leadership of the QEP Development Committee, will appoint the Director. The faculty member who holds this position will initially be compensated by release from two courses per year (i.e., 2 RTs). In the third year of the implementation we will assess the level of oversight needed and decide whether to continue with this model of oversight or move oversight to a full-time Associate Dean.

Coordinators for each Pathways Area

Assistance in supervision of each of the five areas will be provided by coordinators or directors of each program.

In addition to leading a cohort of interns, **Internship Coordinators** will also be responsible for maintaining and creating positive contacts with potential internship sites in the local area (for this purpose a modest budget will be given to each Internship Coordinator). The individuals in these positions should have the ability to present themselves professionally to local internship sites and be able to maintain positive working relationships with contacts at these sites. Coordinators will also ensure that students are properly registered for credit-bearing internships and will work closely with Career Services (e.g., taking advantage of development opportunities offered by that office), other internship coordinators across campus, and the Director of Experiential Learning on showcasing opportunities. Coordinators will be compensated by release from one course per year (1 RT) based upon the average number of students supervised each year (preliminary ratio is 20 students: 1 RT; coordinators may choose to be compensated through an equivalent stipend). Departments with current levels of internship participation to house coordinators with at least 1 RT per year include Psychology, Health and Human Performance, Business & Economics, and English. Other departments (e.g., History and Sociology) may only have enough students to warrant a 0.5 RT position per year. Dr. Pamela Galluch and Dr. Jan Lynch have already been appointed as Internship coordinators for Business and Economics and Psychology departments, respectively. Appointments in other departments will continue throughout the implementation period.

The purpose of the **Service-Learning Liaison** will be to articulate clearly to faculty what service-learning entails and to serve as a knowledgeable resource about the requirements of service-learning to the Director of Experiential Learning. A secondary role of this position will be to encourage faculty (a) to find ways to incorporate service-learning into courses, and (b) to contribute learning modules to non-credit service-learning experiences (e.g., Alternative Spring Break trips). The liaison would work closely with the Director for Community Service. This position will be compensated by a stipend (\$1500-2000 per year). The person in this position should have prior experience with service-learning, be a source of creative ideas to help others see how they might participate, and have good networking/people skills. We will solicit nominations during fall 2011; this person will be appointed in spring 2012.

Despite the fact that a relatively limited number of faculty and staff are qualified to supervise projects in the area of **Creative/Artistic Works**, it will nevertheless be very beneficial to have a representative available to advise the Director of Experiential Learning on the particular concerns and challenges facing those who supervise projects in this area. This position will begin as an informal, uncompensated appointment from either the Fine Arts or Creative Writing faculty; as the offerings in this area grow and expectations increase, we will consider compensating this position with a stipend.

Other coordinator/director positions are already in place:

- *Director of Student/Faculty Research*
- *Director of Intensive Learning*

- *Director of International Education*
- *Director of Career Services*
- *Director of Community Service*

Experiential Learning Advisory Group

The Experiential Learning Advisory Group will be chaired by the Director of Experiential Learning and will consist of a small group of faculty and staff knowledgeable about specific areas of Experiential Learning. The primary responsibilities of this committee will be: (i) to serve as the steering committee for the ongoing implementation of this proposal, and (ii) to review applications for and make recommendations to the Director of Experiential Learning for approval of Pathways projects, student support, project support, and Pathways Reassigned Time Grants. Membership on this group may include, but will not be limited to, the area coordinator/directors mentioned above.

Professional Coordinator for the Office of Experiential Learning

The day-to-day operations of the Center for Experiential Learning will be managed by a professional, full-time coordinator. The person holding the Professional Staff position will report to the Director for Experiential Learning. Appropriate candidates for this position would have strong people skills, strong organizational skills with attention to detail, and the ability to manage student workers. The responsibilities of this job will include:

- advising and directing students to relevant information about Experiential Learning opportunities; setting up appointments for students with the next contact person;
- hiring and supervising the office's student assistants (both general assistants and those providing support for e-portfolio design);
- keeping the Experiential Learning office organized and inviting;
- collecting and managing information about opportunities, application forms, etc.;
- receiving and processing applications for Pathways projects and support; maintaining accurate records of approved projects and processing approved grants;
- coordinating events for showcasing student projects;
- keeping current with literature on/features of e-portfolios and providing non-technical support to students and supervisors to plan ahead;
- working with the Director of Experiential Learning to identify/create appropriate materials for inclusion on the website and making sure website information is current and accurate;
- assisting the Director of Experiential Learning as necessary.

B. Establish a Visible Presence of Experiential Learning on Campus

By housing the program in a ***centralized office***, students who are considering participating in an experiential learning project will easily be able to find information about the different areas of experiential learning and begin the process of identifying an opportunity that is right for them. This centralized office will provide streamlined access to this information and necessary application forms. A second way to achieve greater visibility is through an ***increased web presence*** providing students with access to a database of opportunities,

highlighting past experiences, and providing contact information, application forms, and other relevant information.

Identify the Space for the Office of Experiential Learning

A centrally located space for the Office of Experiential Learning needs to be identified and secured. We have already considered a number of locations on campus for this office. The most promising location at the moment is in Fintel Library in space adjoining the Center for Learning and Teaching (CLT). This location would be advantageous since it would allow us to share student assistants with the CLT as the Pathways Program gets off the ground.

Expand the Experiential Learning Website

The visibility of Experiential Learning opportunities will also be enhanced through a more robust web presence for the program. While some information is currently available on the Roanoke College website, a centralized website for Experiential Learning will be established, and within this website students will be able to view descriptions of previous projects and to search current opportunities. Pathways opportunities and their special funding options will be highlighted. Establishing and maintaining this web presence will require the support and cooperation of other offices on campus. Conversations with Public Relations and Information Technology have already begun about these needs, and a possible commercial software package for the opportunities database has been identified.

C. Educate all Campus Constituencies about Experiential Learning

Lack of communication and coordination in the past has led to inconsistent information and messages about Experiential Learning at Roanoke College. While Roanoke College already offers many experiential learning opportunities, they are often viewed by both faculty and staff as experiences that are only appropriate for the highest achieving students or as extra or as non-essential add-ons to an undergraduate's career. The success of the Pathways Program thus depends upon developing a clear and consistent message about Experiential Learning at Roanoke College and its importance in the lives of our students. This message needs to be disseminated to a variety of offices on campus in addition to Academic Affairs, including Admissions, Student Affairs, Public Relations, and Resource Development. The newly appointed Associate Dean for Academic Affairs and Institutional Relations will provide additional support to the Director of Experiential Learning in developing and disseminating this message.

Within Academic Affairs, this more robust message about Experiential Learning will be disseminated through a series of faculty/staff forums as we implement the Pathways Program. In addition, the success of the Roanoke Pathways Program in reaching a broad range of students will depend upon the integration of Experiential Learning into the range of regular advising topics. The Director of Experiential Learning will work with the Associate Dean & Director for the Center for Learning and Teaching to develop new advising modules to educate advisors about Experiential Learning opportunities and how best to help students begin thinking about these opportunities early in their RC careers. Other areas on campus, e.g., Student Affairs, Admissions, and Resource Development, will develop programs to educate their constituents about Experiential Learning.

D. Develop Materials/Templates for Pathways Projects

The Office of Experiential Learning will develop a range of templates and other materials that can be used to achieve the Pathways quality enhancements. Given the diverse areas of experiential learning opportunities within the program, flexibility in how these enhancements can be achieved will be essential. Development opportunities, training, and ongoing support for faculty/staff will be provided. These templates will include sample learning contracts and reflection prompts for each of the five areas of experiential learning. Some of these templates have already been developed (see, e.g., *Appendix IV: Sample Learning Contract*); work on these templates will continue during the period of implementation.

E. Implement Pathways Projects in All Five Areas

Pathways projects in each of the five areas of Experiential Learning will come on line in a staged roll out. In the year prior to the roll out, training sessions for supervisors will be offered (e.g., using learning contracts and facilitating meaningful reflection) and previously developed materials/templates will be piloted and revised as necessary. Just as contracts and reflections may vary for each area, so also will possibilities for how Pathways projects can be showcased. Showcasing options will also be piloted in the year prior to implementation in order to discover successful ways of helping students bring their projects to a meaningful culmination.

Finding an adequate balance between offering a large number of experiential learning opportunities and ensuring the quality of the student-faculty interaction must be struck and monitored carefully. One preliminary effort to find this balance will be to limit initially the number of Pathways projects to **one project per area per year** for each faculty member (e.g., in one year a faculty member could do a Pathways Intensive Learning course and supervise a Pathways research project; there would be no limit on the number of non-Pathways research projects one could supervise). Once we have refined techniques and learned how much time is required on the part of the supervisors to achieve these quality outcomes, we plan to increase the limit of Pathways projects per year. Any increases will be made in light of the ongoing data gathered through assessment, with quality of experience and attainment of learning outcomes as the primary criteria.

Implementation of Pathways projects in each area will bring their own challenges that must be addressed. Some of these challenges have already been identified; others will become evident through the roll out period. These special issues will be addressed at appropriate times during the roll out.

In the area of **Internships** we will need to address the special challenges of supervising summer internships, interdisciplinary internships, development of on-campus internships, and internships in departments with small numbers of interns. Supervision of these and other non-credit internships may best be handled by the Director of Career Services, who is already doing some of the proposed quality enhancements in supervision of interns. Time will be the greatest factor in allowing her to serve as a Pathways internship coordinator. In order to free up her schedule, we have budgeted for a part-time assistant for her. Work has

already begun to develop a credit-bearing interdisciplinary internship. Student Affairs has already expressed interest in transforming some existing campus jobs into internships.

In the area of **Service-Learning** in addition to encouraging faculty to develop new service-learning courses/modules, other offices on campus have expressed interest in transforming existing opportunities (e.g., athletic teams overseas trips) by incorporating service-learning activities. Ensuring the quality of the service-learning and providing appropriate academic support for these projects will be a welcome challenge we will face.

In the area of **Study Away** we already know that extensive discussions will be necessary to determine how best to implement the Pathways quality enhancements into the experience of semester/year-long study abroad opportunities. During the first two years of implementation, the Study Abroad Coordinator will pilot different aspects of the quality enhancements. After this period we will be in a position to assess the success of these enhancements and at that point begin conversations with the stakeholders in semester/year-long study abroad oversight to see which, if any, of these enhancements could be appropriately added to our students' study abroad experiences. At this time we would also need to determine whether the office of International Education has the resources to implement these enhancements or if other models for oversight need to be considered.

Finally, as the program reaches its fifth year, we will also consider adding new areas of experiential learning to the Pathways Program (e.g., Leadership or "Design Your Own Projects").

F. Design Process for Approving and Supporting Pathways Projects

Application materials and a clear procedure for applying for and approval of Pathways projects and grants must be developed. The Director of Experiential Learning, along with the Experiential Learning Advisory Group, who will be evaluating these applications, will develop both these materials and the procedures. Procedures must include application deadlines, evaluation criteria, approval processes, and process for disseminating funding and stipends. (The Experiential Learning Advisory Group should consider if it is possible to offer faculty the option of receiving their stipend as a grant from which research/travel/student assistants can be paid.) Special attention will be needed to develop eligibility rules and processes for the Pathways Reassigned Time Grants. Eligibility criteria and application/review processes have already been drafted (see *Appendix VI: Pathways Reassigned Time Grants*), but may need further revision.

G. Create Templates and Set Up Training Opportunities for e-Portfolios

The creation of e-portfolios will be encouraged by the Pathways Program as a medium by which students can create a 21st century resume that documents special experiences they have benefited from while at Roanoke College. The College has purchased "Campus Pack," an add-on to Moodle, which will allow all

students to create multi-media e-portfolios. The Pathways Program will encourage all students who participate in the program to devote time to creating an e-portfolio and will provide these students with special support for this task. In addition, anyone involved in a Pathways project (student or supervisor) will have access to video cameras and other technologies for documenting their experiences and accomplishments.

In order to help students begin the process of setting up an e-portfolio, the Office of Experiential Learning will develop an array of templates for e-portfolios that students can easily adopt and modify. The Office will also employ students specially trained in the e-portfolio software to provide group instruction and individual help in creating e-portfolios.

The use of e-portfolios in the way described above will necessitate that the College evaluate whether it wishes to continue the Maroon Passport program. This program documents in a transcript-like fashion student participation in certain co-curricular activities. Given the wider technological advantages of the e-portfolio, the Maroon Passport program may no longer serve a meaningful purpose.

H. Secure Additional Financial Support for Pathways Projects

The College has made a commitment to fund the program on an ongoing basis at the budget level of Year 5. New sources of funding will need to be sought and secured. The College will submit an application for a FIPSE grant in May 2012 (providing the FIPSE program is funded in 2012). In addition the Director of Experiential Learning will work with the Dean and Resource Development to raise targeted funds to support Experiential Learning. A preliminary presentation to the Parent Leadership Council received very positive reception and has encouraged us to see alumni, parents, and other donors as potentially very interested in what Experiential Learning can do for students in the 21st century.

VI. Evaluation and Assessment

The evaluation and assessment of the Pathways Program uses an overall evaluation model that encompasses assessment of change facilitators, use of best practice, student learning outcomes, and the environment. In addition to these areas, we will monitor other factors connected to student participation and overall effectiveness of the program. For a summary table of program evaluation and assessment see *Appendix VII: Pathways Program Evaluation and Assessment*.

A. Overall Evaluation Model

Roanoke Pathways is an enhancement based on the implementation of research-based best-practices to elevate the quality of student experiences leading to student learning and development. Therefore, the program calls for a paradigm shift for administrators, faculty, and staff. We must shift from a perspective of provision to impact, from measuring our success by the number of experiences we offer students to the learning and development gained by students through the experiences. Pathways is not just the implementation of a

new program, it is systematic change in our purpose for applied learning experiences.

Using a CBAM framework described in the literature review, the Pathways project will evaluate the support and implementation efforts of the faculty and staff as well as the impact on student learning and development. The overall evaluation model for the Pathways project using the CBAM framework is depicted below in Figure 7.

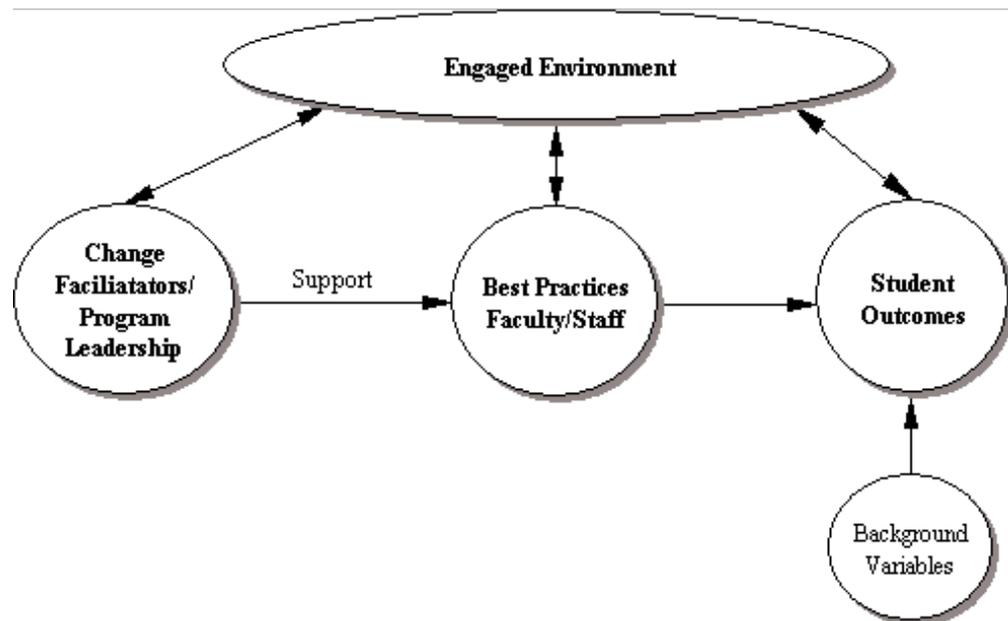


Figure 7. The Evaluation Model for the Roanoke Pathways Program.

In the model, change facilitators, which include program leadership and early adopters, will have direct effects on implementation of best practices in experiential learning, which in turn will have direct effects on student outcomes. Additionally, the model captures the program in the context of the institutional environment. We anticipate individual and institutional effects of the Pathways Program. In the sections that follow, the assessment and evaluation of the model components (Change Facilitators, Best Practices, Student Outcomes, and Environment) are described.

Change Facilitators and Best Practices

As depicted in the overall evaluation model above, we predict faculty and staff who are trained and supported will show a shift in Stages of Concern, Levels of Use, and Innovation Configuration connected to experiential learning opportunities at Roanoke College. As more users implement best practices in experiential education, we expect a direct link to student learning outcomes.

Instruments of Measuring Student Learning Outcomes

Measuring students learning outcomes in the diverse experiences of research, internships, service-learning, study abroad, and creative/artistic works presents unique challenges. Experiential learning opportunities are diverse and are

dependent on many variables including: the discipline of the instructor; the structure of the environment; the location of the experience; the amount of credit awarded; and the level of the student. Therefore, to assess student learning across the diverse opportunities, the Pathways Program will employ a variety of instruments, both internally and externally developed, grounded in experiential learning theory.

Describe, Examine, and Articulate Learning: The DEAL Model for Critical Reflection

To assess the first three student learning outcomes, the program is adapting Ash and Clayton's DEAL Model for Critical Reflection (2009). Grounded in experiential learning theory and best practices, the DEAL model was originally designed for use in service-learning but can be used by all types of applied learning programs (Ash & Clayton, 2009). Depicted below in Figure 8, the DEAL model provides a structure for reflection across experiences to enable a deeper understanding in the categories of academic enhancement, civic learning, and personal growth as well as overall learning gains and reasoning. The DEAL model specifies three steps in critical reflection (Ash & Clayton, 2009):

1. *Description* of experiences in an objective and detailed manner (if students create a thoughtful and detailed description of their experience, then they are more likely to create meaningfulness);
2. *Examination* of those experiences using reflection prompts by category including personal growth, civic engagement, and academic enhancement (students must move past a simple summary in order to truly examine the significance behind the experience); and,
3. *Articulation of Learning*, including goals for future action that can be taken forward into the next experience for improved practice and further refinement of learning. (This step is *crucial* because it allows participants to improve the quality of the experience and apply it in the future.)

Sample reflection prompts for each step in the model as well as by category are available in *Appendix VIII: DEAL Model Sample Prompts*.

The model is well suited to meet the program's assessment needs, and it will be piloted and adapted as needed in the first year to assess the outcomes addressed by the key element of ongoing guided reflection.

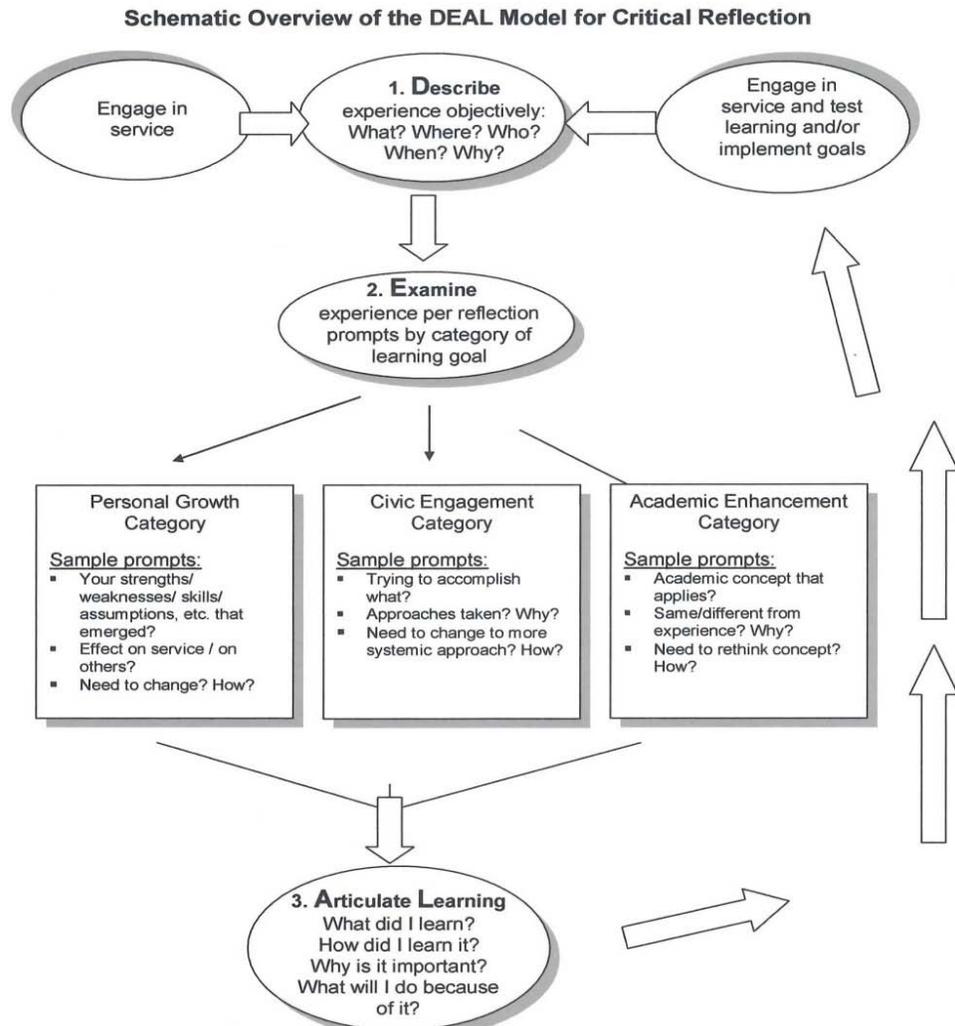


Figure 8. The Deal Model for Critical Reflection.
<http://www.ryerson.ca/experiential/Designing%20Assessments.pdf> (Ash, Clayton & Moses) accessed 6/13/11

Faculty and staff involved in supervision of Pathways opportunities will be provided the DEAL model sample prompts (see *Appendix VIII*) for reference as they customize prompts appropriate to each experience. They will also provide ongoing reflection prompts for each step in the model (Description; Examination of personal growth, civic engagement, and academic enhancement; and Articulation of Learning).

The DEAL Model Critical Thinking Rubric (below) will be used to assess students' reflections, providing feedback to students and informing program-level achievement of outcomes.

Excerpted from Ash, Clayton, & Moses. Teaching and Learning through Critical Reflection. Under development.

DEAL Model Critical Thinking Rubric [August 2007]

[Modified source: Paul, R & Elder, L. 2001. The Miniature Guide to Critical Thinking. The Foundation for Critical Thinking, Santa Rosa, CA. www.criticalthinking.org]

	completely lacking (1)	under-developed (2)	good (3)	excellent (4)
CT Set A				
<i>Integration</i>	Provides no clear connection between the experience and the learning	Provides minimal and/or unclear connection between the experience and the learning	Provides adequate and reasonably clear connection between the experience and the learning	Provides thorough and very clear connection(s) between the experience and the learning
<i>Relevance</i>	Misclassifies the learning and/or inappropriately shifts from one category of learning goal to another; fails to keep the discussion specific to the learning	Discusses learning that is relevant to the category of learning goal, but much of the discussion is not related to the learning	Discusses learning that is relevant to the category of learning goal and keeps the discussion reasonably well focused on the learning	Discusses learning that is relevant to the category of learning goal and keeps the discussion well-focused on the learning
<i>Accuracy</i>	Consistently makes inaccurate statements and/or fails to provide supporting evidence for claims <ul style="list-style-type: none"> • <u>Academic category:</u> Incorrectly identifies, describes, and/or applies academic concept(s) 	Makes several inaccurate statements and/or supports few statements with evidence <ul style="list-style-type: none"> • <u>Academic category:</u> Is not accurate in identifying, describing, and/or applying academic concept(s) 	Usually but not always makes statements that are accurate and well-supported with evidence <ul style="list-style-type: none"> • <u>Academic category:</u> Accurately identifies, describes, and applies appropriate academic concept(s) 	Consistently makes statements that are accurate and well-supported with evidence <ul style="list-style-type: none"> • <u>Academic category:</u> Accurately identifies, describes, and applies appropriate academic concept(s)
<i>Clarity</i>	Consistently fails to provide examples, to illustrate points, to define terms, and/or to express ideas in other ways	Only occasionally provides examples, illustrates points, defines terms, and/or expresses ideas in other ways	Usually but not always provides examples, illustrates points, defines terms, and/or expresses ideas in other ways	Consistently provides examples, illustrates points, defines terms, and/or expresses ideas in other ways
<i>Precision</i>	Consistently fails to provide specific information, descriptions, or data	Only occasionally provides specific information, descriptions, or data	Usually but not always provides specific information, descriptions, or data	Consistently provides specific information, descriptions, or data
<i>Writing</i>	Consistently makes typographical, spelling, and/or grammatical errors	Makes several typographical, spelling, and/or grammatical errors	Makes few typographical, spelling, and/or grammatical errors	Makes very few or no typographical, spelling, and/or grammatical errors
CT Set B				
<i>Depth</i>	Fails to address salient questions that arise from statements being made; consistently over-simplifies when making connections; fails to consider any of the complexities of the issue	Addresses few of the salient questions that arise from statements being made; often over-simplifies when making connections; considers little of the complexity of the issue	Addresses some but not all of the salient questions that arise from statements being made; rarely over-simplifies when making connections; considers some but not all of the full complexity of the issue	Thoroughly addresses salient questions that arise from statements being made; avoids over-simplifying when making connections; considers the full complexity of the issue
<i>Breadth</i>	Ignores or superficially considers alternative points of view and/or interpretations	Gives minimal consideration to alternative points of view and/or interpretations and makes very limited use of them in shaping the learning being articulated	Gives some consideration to alternative points of view and/or interpretations and makes some use of them in shaping the learning being articulated	Gives meaningful consideration to alternative points of view and/or interpretations and makes very good use of them in shaping the learning being articulated
<i>Logic</i>	Draws conclusions and/or sets goals that don't follow at all from the line of reasoning presented	Draws conclusions and/or sets goals that only occasionally follow reasonably well from the line of reasoning presented	Draws conclusions and/or sets goals that usually follow well from the line of reasoning presented	Draws conclusions and/or sets goals that consistently follow very well from the line of reasoning presented
<i>Significance</i>	Draws conclusions and/or sets goals that don't address the most significant issue(s) raised by the experience	Draws conclusions and/or sets goals that only minimally address the significant issue(s) raised by the experience	Draws conclusions and/or sets goals that usually address fairly significant issue(s) raised by the experience	Draws important conclusions and/or sets meaningful goals that substantially address the most significant issue(s) raised by the experience
<i>Fairness</i>	Consistently represents others' perspectives in a biased or distorted way	Occasionally represents others' perspectives in a biased or distorted way	Often but not always represents others' perspectives with integrity	Consistently represents others' perspectives with integrity (without bias or distortion)

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Figure 9. The Deal Model for Critical Thinking Rubric.

The DEAL Model Critical Thinking Rubric (Figure 9) is divided into two parts: Critical Thinking Set A (CT Set A) that assesses the students' ability to effectively connect experience and learning with accurate statements, evidence, examples, specific information, and written communication; and, Critical Thinking Set B (CT Set B) that assesses students' ability to understand the complexity of issues from multiple perspectives and in a broader context with effective reasoning. The ongoing student reflections and scores using the DEAL Rubric, CT Set A are used to measure the learning outcomes: students participating in the Pathways Program will (1) critically reflect on experience from academic, personal/professional, and civic perspectives; and (2) articulate learning gained

in an authentic setting. The rubric components used for each learning outcome and achievement targets are specified in the program assessment plan.

Critical Reflection responses are also used to measure the learning outcome: students participating in the Pathways Program will demonstrate effective reasoning or problem solving skills in an authentic setting. Using the summative reflection response, faculty supervisors apply the DEAL Model Rubric CT Set B to score the quality of student reasoning in the reflection.

As the staged roll-out of the program progresses, the committee will annually make needed changes to prompts and the rubric informed by faculty and staff feedback.

Evaluation Forms

A series of evaluation forms are used to assess students' ability to (1) demonstrate effective reasoning or problem solving skills, (2) collaborate effectively in an authentic setting, as well as (3) demonstrate other knowledge and/or skills appropriate to the experience. For program-level assessment the sections of the evaluation forms connected to reasoning/problem solving and collaboration are used. Other sections of the evaluation form are used for course-level assessment. Students self-assess and complete the Student Evaluation Form. Faculty or staff supervisors assess the students using the Faculty/Staff Evaluation Form. For internships, an internally developed Site Supervisor Evaluation Form is used (see *Appendix IX* for a sample evaluation form).

Rubric Scores for Final Project/Showcase

Depending on the type of showcasing specified in the student learning contract, an appropriate rubric is applied. With the broad range of experiences available the showcasing medium must be appropriate for the experience type. For example, a student engaged in undergraduate research will complete a research paper and the faculty supervisor uses the Research Paper Evaluation Rubric. Students engaged in internships may be expected to give an oral presentation to new majors in the department and the departmental faculty members use the Oral Presentation Evaluation Rubric. The internally developed showcasing rubrics are available in *Appendix V*.

Learning Outcomes Assessment Plan: Pathways Program

The overall student learning assessment plan provides the structure for how the instruments will be used to measure the learning outcomes. The multiple measures for each learning outcome are presented below.

Students participating in a Pathways Program experience will be able to:

1. Critically reflect on experience from academic, personal/professional, and civic perspectives.
 - o Measure 1: CT Set A scores overall and by rubric category from Academic Category reflections using the DEAL model
 - o Measure 2: CT Set A scores overall and by rubric category from the Personal Growth category using the DEAL model
 - o Measure 3: CT Set A scores overall and by rubric category from the Civic Engagement category using the DEAL model

2. Articulate learning gained through experience.
 - Measure 1: CT Set A scores on *Integration* and *Relevance* rubric categories from Academic Category reflections using the DEAL model
 - Measure 2: CT Set A scores on *Integration* and *Relevance* rubric categories from the Personal Growth category using the DEAL model
 - Measure 3: CT Set A scores on *Integration* and *Relevance* rubric categories from the Civic Engagement category using the DEAL model

3. Demonstrate effective reasoning or problem solving skills.
 - Measure 1: CT Set B scores from summary reflection using the DEAL model
 - Measure 2: Reasoning/Problem solving ratings from Student Evaluation Form
 - Measure 3: Reasoning/Problem solving ratings from Faculty/Staff Evaluation Form
 - Measure 4: (internships only) Reasoning/Problem solving ratings from Site Supervisor Evaluation Form

4. Collaborate effectively.
 - Measure 1: Collaboration ratings from Student Evaluation Form
 - Measure 2: Collaboration ratings from Faculty/Staff Evaluation Form
 - Measure 3: (internships only) Collaboration ratings from Site Supervisor Evaluation Form

5. Synthesize knowledge in a final project or showcase.
 - Measure 1: Rubric Scores from the Oral Presentation Evaluation Rubric
 - Measure 2: Rubric Scores from the Poster Presentation Evaluation Rubric
 - Measure 3: Rubric Scores from the Research Paper Evaluation Rubric
(*Others as deemed appropriate by the advisory committee during the project approval process.*)

B. Engaged Environment

Monitoring Engagement Behaviors

The overall evaluation model places change facilitators, the use of best practices, and changes in student learning outcomes in the environment of the institution. We anticipate student involvement in the program will eventually lead to a more engaged environment. In fact, high-impact practices, including experiential learning, have been found to increase student engagement (Kuh, 2008). Student engagement is an indicator of successful classroom performance, improved student retention, and enhanced academic institutional climate. Throughout implementation of the Pathways Program, we will monitor changes in student-reported engagement behaviors using an annual administration of the National Survey of Student Engagement (NSSE). Prior to the 2011-2012 academic year, NSSE was only administered every three years. Beginning in spring, 2012 NSSE will be administered annually to track students' reporting of participation levels, academic engagement, and personal/professional growth (see *Appendix X* for a sample of NSSE survey questions). Results will be compared to previous NSSE data from the 2003, 2006, and 2009 administrations.

Overall Impact on Beliefs and Values

The Roanoke College mission statement captures the College's commitment to educating the whole student. We anticipate the Pathways Program will have an impact on students' beliefs and values through authentic experience and critical reflection. To measure students' change in beliefs and values, the Beliefs, Events and Values Inventory (BEVI) will be administered at orientation and again during the senior exit interview. The pre-post design of the BEVI allows tracking by individual student and gives students the option of receiving a personalized report of their scores on the instrument. Designed in the early 1990s the BEVI is designed for use in applied learning environments. "From the perspective of evaluation and research, the BEVI 1) helps answer questions such as "who learns what and why, and under what circumstances," 2) allows for the examination of complex processes that are associated with belief/value acquisition, maintenance, and transformation, and 3) analyzes the impact of specific experiences that are implicitly or explicitly designed to facilitate growth, learning, or change" (<http://www.thebevi.com/aboutbevi.php>, retrieved 6/20/11). For purposes of program evaluation the changes in belief and value subscale scores will be compared for students who did and did not participate in the Pathways Program. Additionally, the BEVI will be piloted in 2011-2012 as a pre-post measure for study abroad experiences to better understand the impacts of immersive study abroad compared to travel courses. As student beliefs and values are expected to change during the undergraduate educational experience, BEVI scores will be examined overall as well. A more complete description of the instrument, including subscales can be found at www.roanoke.edu/QEP.

C. Data Analyses

Student Learning by Levels of Use

In the roll-out of the Pathways Program, having a randomly selected control group(s) is unrealistic because we will not deny a student access to a best practices experience if he or she desires one. We are aware of the difficulties with comparing student work completed through Pathways and non-Pathways experiences due to selection bias and the lack of existing work samples in non-Pathways experiences. However, we will attempt to collect non-Pathways final papers/projects for comparison to Pathways final papers/projects to explore possible work quality differences. Furthermore, we anticipate meaningful comparisons about student learning between varying Levels of Use by the faculty supervisor. Significant differences in student learning, especially in the area of critical reflection, are predicted between the Levels of Use. Assuming the sample size is large enough, an Analysis of Variance (ANOVA) will be conducted to understand student learning difference across the Levels of Use categories.

Change in Beliefs and Values by Program Participation

As discussed above, the BEVI subscale changes will be analyzed comparing students who did and did not participate in the program.

Progression on Stages of Concern, Levels of Use, and Innovation Configuration

In addition to using the Stages of Concern, Levels of Use, and Innovation Configuration instruments as formative measures to gauge support and development needs, the instruments' data will be monitored for summative

purposes. We anticipate shifts in Stages of Concern from a 'self' focus to an 'impact' focus and Levels of Use from 'nonuse' toward 'refinement'.

D. Other Measures of Program Success

In addition to implementation surveys to measure change, student learning outcome measures, and institution-wide measures, other measures will be used for benchmarking of Pathways implementation. The assessment data for the measures will be recorded in the administrative assessment plan for the Pathways Program.

Participation

Student participation will be monitored and disaggregated by type of experience, year of student, predicted GPA quintile, gender, ethnicity, and financial aid category.

Retention

First-year to sophomore retention, sophomore to junior retention, and time to graduation will be monitored and disaggregated by participation in the Pathways program and year of student participation. Furthermore, the interaction between the other background variables, predicted GPA quintile, gender, ethnicity, and financial aid category, and retention will be analyzed.

Post-graduation Schooling/Employment

Participants' graduate and professional school enrollment as well as employment in the students' desired field will be tracked.

Faculty and Staff Support and Development

The number of development activities, attendance, and attendee feedback will be recorded and analyzed to inform future development needs and indirectly measure the level and quality of support provided to throughout the program.

Summative Program Evaluation Process

At the end of the fourth year of implementation, the Pathways program will begin the Program Evaluation Process (PEP). As specified in the Institutional Effectiveness section of the Roanoke College website, the PEP begins with a self-study, invites two external evaluators to campus who provide a written evaluation of the program, and ends with panel recommendations leading to the development of a forward thinking, 5-year strategic plan for the program.

VII. Timeline

The implementation of the Pathways Program will take place over the next six years. A staged roll out has been designed to ensure a focus on quality and meaningful data collection, while keeping in mind current economic realities. This roll out is described and displayed graphically below.

- Pathways projects in the five areas will be implemented over the first three years. We expect that the levels of faculty/student participation in Pathways projects will increase over time; for example, the internship coordinator/cohort model will be initially tested in a limited number of departments. The number

of coordinators will be increased in subsequent years of the roll-out. The project budget reflects these increasing costs in each of the five areas.

- Fall 2012 - Internships and Service-Learning
- Fall 2013 - Creative/Artistic and Study Away Phase 1 (Intensive Learning Travel)
- Fall 2014 - Research
- Fall 2016 - Study Away Phase 2 (Semester/year-long study away)
- Development of materials, piloting of quality enhancements and evaluation instruments, and offering of faculty development opportunities for each of the five areas will take place in the year or two prior to the roll out of projects in each area (in orange below).
- Student and project support (in green below), as well as supervisors stipends (in yellow), will be available as soon as each area comes on line. The Pathways Reassigned Time Grants, however, will first be available in year 5. During that year six grants will be available; this number will increase to a total of nine per year by approximately AY18-19. Important deadlines:
 - Spring 2012 - Establish process for Pathways projects approval and support
 - Fall 2014 - Establish criteria and process for Pathways Reassigned Time Grants
- Student support for creating e-portfolios will gradually increase throughout the period of the roll out. Important deadlines:
 - Spring 2012 - create templates
 - Fall 2012 onwards - offer workshops on creating e-portfolios
 - Fall 2014 onwards - offer regular design support for students
- Leadership will evolve throughout the project implementation.
 - Fall 2011 - appoint Director of Experiential Learning (to start Spring 2012)
 - Fall 2011 - appoint Service-Learning Liaison (to start Spring 2012)
 - Fall 2011 onwards - appoint Internship Coordinators
 - Spring 2012 - appoint Experiential Learning Advisory Group
 - Fall 2013 onwards - hire student assistants for office
 - Spring 2014 - appoint Professional Coordinator (to start Fall 2014)
- Establish a visible presence and common understanding of Experiential Learning on campus will be an ongoing effort, which will include:
 - Fall 2011- identify space for the Office of Experiential Learning
 - Spring 2012 onwards - expand the Experiential Learning Website
 - Spring 2012 onwards - offer Faculty/Staff forums
 - Spring 2012 onwards - create advising modules
- Program evaluation and learning outcome assessment is crucial to this project's success.
 - Fall 2011 onwards - collect baseline data for assessment
 - Spring 2012 onwards - pilot new assessment instruments
 - Spring 2012 onwards - annual faculty survey on program implementation
 - Fall 2012 onwards - collect learning outcomes assessment data as each area comes on line
 - Fall 2014 onwards - make changes to the program as supported by data.

Roanoke Pathways Program Roll Out Timeline						
	Pilot Year (11-12)	Year 1 (12-13)	Year 2 (13-14)	Year 3 (14-15)	Year 4 (15-16)	Year 5 (16-17)
Internships		3 coordinator RTs	5 RTs	6 RTs	7 RTs	
		Student funding available (\$100)				
Service-Learning	Identify early-adopter coordinators. Fall: Coordinators work to refine learning contract, reflection, and evaluation instruments. Spring: Coordinators pilot the new materials and make adjustments.	Coordinators implement learning contract, ongoing guided reflection, and evaluation instruments. At the beginning of the year, coordinators meet to calibrate the reflection rubric. At the end of each semester coordinators meet to cross-score a sample of reflections for reliability and aggregate reflection and evaluation data for program-level learning outcomes.				
		Faculty Liaison & stipend for supervisors (\$400)				
Creative/Artistic		Project funding available (\$500)				
	Identify liaison and early-adopter supervisors. Fall: Liaison and supervisors refine learning contract, reflection prompts, and evaluation instruments. Spring: Supervisors pilot the new materials and make adjustments.	Supervisors implement learning contract, ongoing guided reflection, and evaluation instruments. At the beginning of the year, supervisors meet to calibrate the reflection rubric. At the end of each semester coordinators meet to cross-score a sample of reflections for reliability and aggregate reflection and evaluation data for program-level learning outcomes. At the end of the year, showcasing evaluations and other service-learning findings are discussed and needed changes are suggested.				
Creative/Artistic		Stipend for supervisors (\$400)				
		Project funding available (\$500)				
Creative/Artistic	Work with Fine Arts and Creative Writing faculty to discuss collection and assessment of baseline data	Identify early-adopter. Fall: refine learning contract, reflection prompts, and evaluation instruments. Spring: pilot the new materials and make adjustments.	Supervisors implement learning contract, ongoing guided reflection, and evaluation instruments. At the beginning of the year, supervisors meet to calibrate the reflection rubric. At the end of each semester coordinators meet to cross-score a sample of reflections for reliability and aggregate reflection and evaluation data for program-level learning outcomes. At the end of the year, showcasing evaluations and other service-learning findings are discussed and needed changes are suggested.			

	Pilot Year (11-12)	Year 1 (12-13)	Year 2 (13-14)	Year 3 (14-15)	Year 4 (15-16)	Year 5 (16-17)
Study Away			Stipend for Pathways IL courses (\$400)	Phase 1	Phase 1	Add Phase 2
			Course support available (\$500)			Supervisor support TBD
	Refinement of IL critical reflection rubric and collection of baseline data. Training for BEVI, collection of baseline BEVI (pre/post), continued refinement of reflection prompts.		Full implementation of learning contract, reflection, and evaluation. Class participation in BEVI pre-post.			Student support TBD
Research					Stipend for supervisors (\$400)	
					Student funding available (\$500)	
	Continued collection of baseline data: learning contracts, student projects, and reflections scored by a panel.				Supervisors implement learning contract, ongoing guided reflection, and evaluation instruments. At the beginning of the year, supervisors meet to calibrate the reflection rubric. At the end of each semester a panel meets to cross-score a sample of reflections for reliability and aggregate reflection and evaluation data for program-level learning outcomes. At the end of the year, showcasing evaluations and other findings are discussed and needed changes are suggested.	
Pathways Reassigned Time Grants						6 RTs
e-Portfolios	Develop templates	Offer workshops				Grant evaluation process is established and shared.
Staffing	Director of Experiential Learning	Add Student Assistants				Regular IT & design support available
Program Evaluation & Assessment	Collect baseline data & implement assessment instruments. Annual faculty survey using Concerns-Based Adoption Model.					Add Professional Staff and IT Assistants
						Evaluation & adjustments

VIII. Appendices

Appendix I: References

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Appendix II: Stages of Concern Questionnaire

SoC Questionnaire Items (adapted for Pathways)

0 1 2 3 4 5 6 7
Not true of me now Somewhat true of me now Very true of me now

0 1 2 3 4 5 6 7 I am concerned about students' attitudes toward the Pathways Program.

0 1 2 3 4 5 6 7 I now know of some other approaches that might work better.

0 1 2 3 4 5 6 7 I don't even know what the Pathways Program is.

0 1 2 3 4 5 6 7 I am concerned about not having enough time to organize myself each day.

0 1 2 3 4 5 6 7 I would like to help other faculty in their use of experiential education.

0 1 2 3 4 5 6 7 I have a very limited knowledge about the Pathways Program.

0 1 2 3 4 5 6 7 I would like to know the effect of reorganization on my professional progress.

0 1 2 3 4 5 6 7 I am concerned about the conflict between my interests and my responsibilities.

0 1 2 3 4 5 6 7 I am concerned about revising my use of experiential education for the Pathways Program.

0 1 2 3 4 5 6 7 I would like to develop working relationships with both our faculty and outside faculty using experiential education.

0 1 2 3 4 5 6 7 I am concerned about how the Pathways Program affects students.

0 1 2 3 4 5 6 7 I am not concerned about the Pathways Program.

0 1 2 3 4 5 6 7 I would like to know who will make the decisions in the new system.

0 1 2 3 4 5 6 7 I would like to discuss the possibility of using experiential education.

0 1 2 3 4 5 6 7 I would like to know what resources are available with the Pathways Program.

0 1 2 3 4 5 6 7 I am concerned about my inability to manage all that the program requires.

0 1 2 3 4 5 6 7 I would like to know how my teaching or administration is supposed to change.

0 1 2 3 4 5 6 7 I would like to familiarize other departments or persons with the progress of this new approach.

0 1 2 3 4 5 6 7 I am concerned about evaluating my impact on students.

0 1 2 3 4 5 6 7 I would like to revise the Pathways Program's instructional approach.

0 1 2 3 4 5 6 7 I am completely occupied with other things.

0 1 2 3 4 5 6 7 I would like to modify our use of this program based on the experiences of our students.

0 1 2 3 4 5 6 7
 Not true of me now Somewhat true of me now Very true of me now

- 0 1 2 3 4 5 6 7 Although I don't know about the Pathways Program, I am concerned with things in the area.
- 0 1 2 3 4 5 6 7 I would like to excite my students about their part in this approach.
- 0 1 2 3 4 5 6 7 I am concerned about time spent working with nonacademic problems related to the program.
- 0 1 2 3 4 5 6 7 I would like to know what the program will require in the immediate future.
- 0 1 2 3 4 5 6 7 I would like to coordinate my effort with others to maximize the program's effects.
- 0 1 2 3 4 5 6 7 I would like to have more information on time and energy commitments required by the Pathways Program.
- 0 1 2 3 4 5 6 7 I would like to know what other faculty are doing in this area.
- 0 1 2 3 4 5 6 7 At this time, I am not interested in learning about the Pathways Program.
- 0 1 2 3 4 5 6 7 I would like to determine how to supplement, enhance, or replace program components.
- 0 1 2 3 4 5 6 7 I would like to use feedback from students to change the program.
- 0 1 2 3 4 5 6 7 I would like to know how my role will change when I am involved in the program.
- 0 1 2 3 4 5 6 7 Coordination of tasks and people is taking too much of my time.
- 0 1 2 3 4 5 6 7 I would like to know how the Pathways Program is better than what we have now.

Levels of Use

Which of the following **best describes** your level of use of the Pathways Program? (select one)

- I do not know much about the Pathways Program. I am not really interested in becoming involved at this time. (nonuse)
- I have learned a little bit about the Pathways Program. I am trying to decide if participation offers value to student learning to justify getting involved. (orientation)
- I have been introduced to the Pathways Program. I am preparing to use some of the program components for the first time. (preparation)
- I have been getting used to using the components of the Pathways Program. I am trying to implement the tools in a way that will work with my style and not disrupt my other responsibilities. (mechanical)
- I have figured out how to implement the basics of the Pathways Program components in a way that works for me and my students. My implementation of the program components has stabilized. (routine)

- I figured out how to implement the program components that works for me and the students. Now, I am trying to vary what I have been doing to increase the positive impact on student learning. (refinement)
- I have implemented the Pathways components and implemented revisions to improve student learning. Now I am working with others to share and learn new techniques for the use of experiential learning to have an impact on a larger group. (Integration)
- I have implemented Pathway program components, made changes to more effectively implement the components, and worked with others to try new techniques to have a collective impact on students. Now, I am reevaluating my use of experiential learning to seek alternative methods to increase student impact and explore new developments in the area. (renewal)

Follow-up open-ended questions:

Describe where you are in the implementation process. Describe your recent activities with experiential learning.

Examine your personal perspective as well as the classroom perspective. What are your feelings about use of experiential learning activities to facilitate teaching and learning?

Articulate your learning about the use of experiential learning activities. What have you learned about your approach to teaching? Have you made changes? What have you learned about how students interact with knowledge in an applied setting?

Appendix III: Pathways Project Components

Sample Innovation Configuration Checklist Pathways Project Components

Component	Unacceptable	Level 1	Level 2	Level 3
Learning Agreement	The learning agreement is lacking the essential components.	Using the sample learning agreement. The learning agreement has the essential components.	The learning agreement has been individualized to meet student learning goals.	The learning agreement has been envisioned to be an integrated guide for student ownership of the learning.
Guided Reflection	Reflection is not on-going or does not specify the three perspectives.	Reflection is evident and follows the minimum standards.	Reflection is designed to be ongoing and address student learning perspectives tailored to student learning goals.	Reflection is ongoing, individualized to student needs and incorporates a flexibility to adapt to student learning throughout the experience.
Showcasing	The showcasing project does not adequately synthesize student learning.	The showcasing/project planned has the essentials to allow for synthesis of knowledge.	The showcasing allows for student knowledge to be shared from multiple perspectives.	The showcasing is individualized and fully integrated into the student's learning goals.

Note: Levels 1-3 represent acceptable plans for projects. The varying levels will help to evaluate the configuration of the project components.

Appendix IV: Sample Learning Contract

TITLE OF PROJECT

Learning Contract for SEMESTER YEAR

To be completed by the Add/Drop date for the semester.

Student: _____ Supervisor: _____

Project Description (2-4 sentences):

The Roanoke College QEP aims to expand a student development in the areas of academics, personal knowledge, and societal engagement.

I will apply learning in an authentic setting and critically reflect on the experience from academic, personal, and civic perspectives. Through reflection, I will articulate what I learned. My objectives to accomplish this outcome are:

- List 1-3 items planned for the project that focus on reflection in these three areas.

I will collaborate effectively. My objectives to accomplish this outcome are:

- List 1-3 items planned for the project that focus on communication and collaboration.

I will synthesize my knowledge in a final project or showcase. My objectives to accomplish this outcome are:

- List 1-3 items planned for the project that focus on showcasing.

I propose the following schedule:

Timeline	Objective	Method to Accomplish Objective
Specific Month	Objective #1 and #3	Method/Task description
Range of Months	Objective #2	Method/Task description
Entire Semester	Objective #4	Method/Task description

I will work approximately ___ hours per week, or ___ hours this semester, on this project. I will meet with my supervisor on the following schedule:

My work will be Volunteer For Course Credit

Course Number, Course Name, Units

Student Date

Supervisor Date

Appendix V: Showcasing Rubrics

Student: _____ Date of Evaluation: _____

Oral Presentation Evaluation Rubric

Supervisor: _____ Evaluator: _____

Criterion	1 - Unacceptable	2 - Acceptable	3 - Good	4 - Exemplary	Rating
Project Overview (Purpose Or Goal)	The central idea is unclear throughout the presentation. It is never clearly stated.	By the time the speaker gets to the end of the presentation, the main idea is clear, but it took real work for the audience to figure out that main idea.	The main idea is generally clear, but the presentation sometimes wanders off topic. The importance of the project may need to be inferred rather than being explicit.	The central idea of the project is immediately clear to the audience. The overall idea clearly has merit.	
Disciplinary Context & Importance	Neither the broad context for the project nor the existing background that justifies the current narrow project are presented. The project's importance is unclear.	The project is presented with a narrow focus. Wider connections aren't fully presented, but a solid background for the narrow focus area is included.	The broader context of the project is presented, although not clearly. The audience has to infer those interconnections or the project's importance.	The project is clearly placed within the broader context of the discipline. The importance of the project is clearly explained.	
Organization	The flow of ideas is unclear. The audience struggles to see organization, and has trouble figuring out how things are interconnected.	The main ideas are understandable, but there is a sense of disorder or awkwardness in the flow. There are small problems throughout the talk.	The reasoning flows well overall, but there are detours along the way, distracting the audience. The main points come through clearly, nonetheless.	The ideas flow smoothly. The progression from thesis to background to evidence and discussion is clear, with good flow and transitions.	
Mechanics	The talk is unclear and prevents the audience from understanding a significant portion of the ideas. Presentation issues are frequent and annoying.	The talk is just standard, without distinction. Presentation issues occur repeatedly, but are not excessive. The audience perceives the talk as just "okay".	The talk is clear, but not unusually interesting. There are a few presentation problems that distract the audience, but they are not major disruptions to the flow of the talk.	The talk is interesting, and the audience would describe the speaker as well spoken. Presentation mannerisms, if any, do not distract the audience.	
Presentation Aids (PowerPoint, Visual Aids, Handouts)	Presentation aids aren't used, or are used poorly. Any aids used interfere with communication of ideas rather than enhancing communication. The audience finds them annoying more often than not.	Presentation aids are used, but clearly have issues. They may be too detailed, or just text, or generally unclear. The main ideas are still present, but the presentation aids are only adequate.	Appropriate presentation aids are used. Material is clearly displayed, and both text and graphics are used. A few issues with level or detail or graphic style are present, but do not interfere with communicating ideas.	Presentation aids clearly enhance the presentation and have a professional feel. Visual material is clear, with sufficiently large fonts and an appropriate mix of text and graphic material. The level of detail is appropriate.	
Results & Discussion	The discussion is significantly unclear or the conclusions are unsupported. The project appears incomplete or incorrect.	The discussion is sometimes incomplete or the logic for a conclusion is incorrect. However, the core content and conclusions are present.	Arguments or experimental analysis or creative explanations are clearly done. The depth of discussion may sometimes be lacking a little, or the logic for a conclusion is incomplete.	Main student ideas/creations or experimental ideas are clearly presented and discussed. The logic behind conclusions is laid out clearly.	
Overall Depth	The project does not have much complexity. The ideas and analysis are lower level undergraduate only. The feel of the project is one of being scattered or incomplete.	A good amount of work is represented in this project. The presentation of that work is uneven, and connections with published work are incomplete, as is some of the analysis.	The content of this project has good detail, but not an unusual amount. The integration of fresh work with past knowledge is good, but not perfect.	The content of this project is rich and deep. Ideas are fleshed out with ideas from references and from fresh knowledge or analysis. The level is clearly upper level undergraduate.	

Student: _____
 Supervisor: _____

Poster Presentation Evaluation Rubric

Date of Evaluation: _____
 Evaluator: _____

Criterion	1 - Unacceptable	2 - Acceptable	3 - Good	4 - Exemplary	Rating
Project Overview (Purpose Or Goal)	The central idea is unclear throughout the poster. It is never clearly stated.	By the time the viewer reads the conclusions, the main idea is clear, but it took real work to figure out that main idea.	The main idea is generally clear, but the poster sometimes wanders off topic. The importance of the project may need to be inferred rather than being explicit.	The central idea of the project is immediately clear to the viewer. The overall idea clearly has merit.	
Disciplinary Context & Importance	Neither the broad context for the project nor the existing background that justifies the current narrow project are presented. The project's importance is unclear.	The project is presented with a narrow focus. Wider connections aren't fully presented, but a solid background for the narrow focus area is included.	The broader context of the project is presented, although not clearly. The audience has to infer those interconnections or the project's importance.	The project is clearly placed within the broader context of the discipline. The importance of the project is clearly explained.	
Organization	The flow of ideas is unclear. The viewer struggles to see organization, and has trouble figuring out how things are interconnected.	The main ideas are understandable, but the flow is disordered or awkward. There are small problems in multiple parts of the poster.	The reasoning flows well overall, but there are detours along the way, distracting the audience. The main points come through clearly, nonetheless.	The ideas flow smoothly on the poster. The progression from thesis to background to evidence and discussion is clear, with good flow and transitions.	
Mechanics	The poster is unclear and prevents the audience from understanding a significant portion of the ideas. Design issues are frequent and annoying.	The poster is just standard, without distinction. Design problems occur repeatedly, but are not dominant. The viewer perceives the poster as just "okay".	The poster is clear, but not unusually interesting. There are a few design problems (font, color, lack of white space, unclear graphics, etc.) that distract the audience, but no major disruptions to the flow of the poster.	The poster is well designed, with appropriate titles, fonts, white space, text, and graphics. There are no major distractions present.	
Oral Presentation	The author's introduction is unclear or scattered. Main ideas aren't presented. More detailed discussion is mostly confusing.	The author's introduction is okay, mostly explaining the project. Deeper discussions are awkward, but mostly help the viewer understand the project.	The author gives a clear 30-60 second introduction. More detailed discussion is mostly successful, but with some awkwardness.	The author clearly states the main ideas in a 30-60 second introduction. The author is comfortable expanding the discussion to include more detail.	
Results & Discussion	The discussion is significantly unclear or the conclusions are unsupported. The project appears incomplete or incorrect. The "bottom line" is truly weak. The author's discussion is not clear, and shows limited understanding of the project.	The discussion is sometimes incomplete or the logic for a conclusion is incorrect. The core content and conclusions are present but not totally correct or easy to see. The author's oral explanations are only partially helpful.	Arguments or experimental analysis or creative explanations are clearly done. The depth may sometimes be lacking a little, or the logic for a conclusion is incomplete. Main conclusions are present, but not totally clear. The author explains most content in conversation.	Main student ideas/creations or experimental ideas are clearly presented and discussed. The logic behind conclusions is laid out clearly. Conclusions are easy to find, and the author can explain them in conversation.	
Overall Depth	The project does not have much complexity. The ideas and analysis are lower level undergraduate only. The feel of the project is one of being scattered or incomplete.	A good amount of work is represented in this project. The presentation of that work is uneven, and connections with published work are incomplete, as is some of the analysis.	The content of this project has good detail, but not an unusual amount. The integration of fresh work with past knowledge is good, but not perfect.	The content of this project is rich and deep. Ideas are fleshed out with ideas from references and from fresh knowledge or analysis. The level is clearly upper level undergraduate.	

Student: _____

Research Paper Evaluation Rubric

Date of Evaluation: _____

Supervisor: _____

Evaluator: _____

Criterion	1 - Unacceptable	2 - Acceptable	3 - Good	4 - Exemplary	Rating
Project Overview (Purpose Or Goal)	The central idea is unclear throughout the paper. It is never clearly stated.	By the time the reader gets to the end of the paper, the main idea is clear, but it took real work to figure out that main idea, perhaps due to too many ideas being discussed equally.	The main idea is generally clear, but the writing sometimes wanders off topic. The importance of the project may need to be inferred rather than being explicit.	The central idea of the project is immediately clear to the reader. The overall idea clearly has merit.	
Disciplinary Context & Importance	Neither the broad context for the project nor the existing background that justifies the current narrow project are presented. The project's importance is unclear.	The project is presented with a narrow focus. Wider connections aren't fully presented, but a solid background for the narrow focus area is included.	The broader context of the project is presented, although not clearly. The reader has to infer those interconnections or the project's importance.	The project is clearly placed within the broader context of the discipline. The importance of the project is clearly explained.	
Use of References or Sources	References/sources are insufficient in number or are poorly explained and used. Some material may even be used without full acknowledgment.	There are appropriate references/sources used, but perhaps not enough of them, or their use is distinctly awkward, or some of them are professionally questionable.	Appropriate professional references/sources are used, but they're sometimes separate or awkwardly integrated, such that the reader notices them rather than perceiving a smooth flow.	Sufficient and appropriate professional references/sources are well integrated into the paper.	
Organization	The flow of ideas is unclear. The reader struggles to see organization, and has trouble figuring out how things are interconnected.	The main ideas are understandable, but there is a sense of disorder or awkwardness in the flow. There are small problems throughout the paper.	The reasoning flows well overall, but there are detours along the way, distracting the reader. The main points come through clearly, nonetheless.	The ideas flow smoothly. The progression from thesis to background to evidence and discussion is clear, with good flow and transitions.	
Mechanics	Writing is unclear and prevents the reader from understanding a significant portion of the ideas. Grammar and spelling problems are frequent and annoying.	The writing is just standard, without distinction. Spelling and grammar issues appear on each page, but not more than a couple per page. The reader perceives the writing as just "okay".	The writing is clear, but not unusually interesting. There are a few grammar and spelling problems that distract the reader, but they are not major disruptions to the flow of the document.	The writing is interesting, with a variety of sentence structures and language. Spelling or grammar issues are infrequent and do not distract the reader.	
Results & Discussion	The discussion is significantly unclear or the conclusions are unsupported. The project appears incomplete or incorrect.	The discussion is sometimes incomplete or the logic for a conclusion is incorrect. However, the core content and conclusions are present.	Arguments or experimental analysis or creative explanations are clearly done. The depth of discussion may sometimes be lacking a little, or the logic for a conclusion is incomplete.	Main student ideas/creations or experimental ideas are clearly presented and discussed. The logic behind conclusions is laid out clearly.	
Overall Depth	The project does not have much complexity. The ideas and analysis are lower level undergraduate only. The feel of the project is one of being scattered or incomplete.	A good amount of work is represented in this project. The presentation of that work is uneven, and connections with published work are incomplete, as is some of the analysis.	The content of this project has good detail, but not an unusual amount. The integration of fresh work with past knowledge is good, but not perfect.	The content of this project is rich and deep. Ideas are fleshed out with ideas from references and from fresh knowledge or analysis. The level is clearly upper level undergraduate.	

Appendix VI: Pathways Reassigned Time Grants

At Roanoke College, working closely with students on projects which connect knowledge gained in the classroom to experiences designed to put that knowledge into practice is part of our responsibilities as faculty. As such, we should expect all faculty to play a role in creating new or enhancing existing experiential learning opportunities for our students. For those faculty who commit more substantial time and effort in the creation and supervision of these opportunities, support in the form of reassigned time is available through a competitive application process. Pathways Reassigned Time (PRT) grants are similar in nature to the Faculty Scholar Awards, but are designed specifically to promote faculty efforts to enhance the offerings of experiential learning opportunities at Roanoke. Whereas the Faculty Scholar Award supports faculty in their scholarship, PRT grants recognize those faculty with a track record of providing experiential learning opportunities for our students. Though use of reassigned time need not involve student participation, it should have as its ultimate goal the creation of new or enhanced experiential learning opportunities.

Eligibility

To be eligible for a PRT grant, faculty must be able to demonstrate a track record of supervising high-quality, Pathways-approved experiential learning projects. A minimum of 6 supervised projects is recommended. Faculty currently with a PRT may apply for the next year provided they can demonstrate a continued commitment to supervising high-quality experiences. However, all else being equal, award preference will be given to those faculty not currently with a PRT grant.

Application and Review Process

Faculty submit a portfolio of materials to the Experiential Learning Committee describing the Pathways-approved experiential learning projects they have supervised and plans for use of the reassigned time. Applications are evaluated by the EL Committee based on the following criteria:

- The faculty member clearly demonstrates a track record of supervising high-quality projects from the areas of research, creative/artistic, study away, or service-learning.
- The student experiences focus on the active use of disciplinary knowledge, personal and professional development, and societal engagement.
- The faculty member has a clear plan for how the reassigned time will be used to create new or enhance existing experiential learning opportunities.

Unsuccessful applicants are encouraged to reapplying the following year.

Experiential Learning (EL) Committee

The primary responsibilities of this committee are:

- Serve as the steering committee for implementation of the Pathways Program.
- Review and approve projects to be part of the Pathways Program.
- Review proposals for student support.
- Review proposals for project support.
- Review proposals for PRT grants.

Appendix VII: Pathways Program Evaluation and Assessment

Summary Table

Overarching Objectives	Outcomes	Measure/Data Source	Administration Timeline	Responsible Person/Group
<p>I. To improve the quality of the wide array of experiential learning opportunities currently available to our students and support participation.</p>	<p>A. Pathways Program leadership will facilitate the change process leading to the adoption of best practices.</p>	<p>Stages or Concern</p>	<p>Annually, early fall</p>	<p>Dir. of Inst. Effectiveness & Assessment/ Dir. of Exp. Learning</p>
		<p>Levels of Use</p>	<p>Annually, early fall</p>	<p>Dir. of Inst. Effectiveness & Assessment/ Dir. of Exp. Learning</p>
	<p>B. The Pathways Program will focus on the following student learning outcomes.</p>	<p>Innovation Configurations</p>	<p>Ongoing, during the committee review cycle</p>	<p>Dir. Of Exp. Learning and Advisory Group</p>
	<p>Students participating in the Pathways Program will:</p> <ol style="list-style-type: none"> Critically reflect... Articulate learning gained... 	<p>(see learning outcomes assessment plan for more detail)</p> <p>Rubric-scored student reflections.</p> <p>Rubric-scored student reflections.</p>	<p>Ongoing reflections, sample reflection and summative score submitted at the end of the experience.</p> <p>Ongoing reflections, sample reflection and summative score submitted at the end of the experience.</p>	<p>Student, Faculty/Staff supervisor, Dir. of Exp. Learning and Advisory Group</p> <p>Student, Faculty/Staff supervisor, Dir. of Exp. Learning and Advisory Group</p>

Overarching Objectives	Outcomes	Measure/Data Source	Administration Timeline	Responsible Person/Group
	3. Demonstrate effective reasoning or problem solving	Rubric-scored student reflections.	Ongoing reflections, sample reflection and summative score submitted at the end of the experience.	Student, Faculty/Staff supervisor, Dir. of Exp. Learning and Advisory Group
		Student evaluation form	At the end of the experience.	Student, Faculty/Staff supervisor
		Faculty/Staff evaluation form	At the end of the experience.	Faculty/Staff supervisor
		Site supervisor evaluation form (internships)	At the middle and end of the internship.	Site Supervisor
	4. Collaborate effectively	Student evaluation form	At the end of the experience.	Student, Faculty/Staff supervisor
		Faculty/Staff evaluation form	At the end of the experience.	Faculty/Staff supervisor
		Site supervisor evaluation form (internships)	At the middle and end of the internship.	Site Supervisor
	5. Synthesize knowledge in final project or showcase	Appropriate rubric score from the final project or showcase (oral presentation and/or poster presentation and/or research paper evaluation)	At the end of the experience.	Faculty/Staff supervisor

Overarching Objectives	Outcomes	Measure/Data Source	Administration Timeline	Responsible Person/Group
	C. The Pathways program will support student participation and an engaged environment	Trends in National Survey of Student Engagement (NSSE)	Annually	Dir. of IR
		Participation, aggregated by experience, year, GPA, sex, ethnicity, and financial need	Annually	Dir. of IR
	D. The Pathways participants will experience an overall impact on beliefs and values as they connect to the Roanoke College mission	Retention by subgroup monitored by program participation	Annually	Dir. of IR
		Beliefs, Events, and Values Inventory (BEVI)	Pre-post measure (orientation and senior exit)	Dir. of Inst. Effectiveness & Assessment/ Dir. of Exp. Learning
II. To increase program visibility for a wider range of students.	A. Roanoke College students will experience a visible experiential learning program	Responses to the experiential learning student survey (baseline established spring, 2011)	Annually	Dir. of Inst. Effectiveness & Assessment
		Pathways program website hits	Annually	Public Relations
		Participation, aggregated by experience, year, GPA, sex, ethnicity, and financial need	Annually	Dir. of IR
III. Overall Program Evaluation	A. Roanoke College will evaluate the effectiveness of the Pathways Program.	The Program Evaluation Process	At the end of the 4 th year	Dir. of Inst. Effectiveness & Assessment/ Dir. of Exp. Learning

Appendix VIII: DEAL Model Sample Prompts

The DEAL Model for Critical Reflection – Describe, Examine, and Articulate Learning

Describe Experience(s) Objectively

Part I: Overview of “big picture” – what have I done since the last reflection session?

Part II: Home in on 2 or 3 key experiences to focus the reflection on - What were the most significant or reflection-worthy experiences?

- Where was I?
- Who else was there?
- When did this experience take place?
- What was said?
- What did I/others do?
- Why were we there? (NOTE: Be careful here. “Why” can be an objective question, as in “we were having this conversation because the Director had scheduled a meeting of the entire group and had invited both me and Mr. Smith” but it can also open the door to interpretation, as in “we were having this conversation because the Director wanted me and Mr. Smith to advise her”)

Assess Progress Since Last Reflection

- What were my goals as articulated at the end of the previous reflection session and/or in my articulated learnings from the previous reflection session? What specific conclusions did I intend to enact or test based on my previous articulated learnings?
- What specific steps did I take in order to attain these goals?
- What obstacles—internal and external—hindered me? What factors made me more effective?
- In what ways did my attempts to attain goals or to enact or test conclusions proceed as expected, based on my earlier understanding, and in what ways was I surprised?
- What do my attempts to enact or test previous conclusions tell me about the validity of those conclusions? In what specific ways is my understanding of those conclusions changing yet again?
- How can I change my behavior or mentality in order to make better progress toward my goals? What specific steps do I need to take in order to continue refining my understanding?

Examine Experience from a Personal Perspective

- How did this experience make me *feel* (positively and/or negatively)? How did I handle my emotional reactions? Do I believe I should have felt differently than I did?
- What *assumptions or expectations* did I bring to the situation (including my assumptions about other persons involved) and how did they affect my actions? To what extent did they prove true? If they did not prove true, why was there a discrepancy?
- How have *past experiences* influenced the manner in which I acted or responded to this situation? Am I comfortable with the influence past experiences has on me?
- What personal *strengths / weaknesses* of mine did the situation reveal? In what ways did they affect the situation, positively and negatively? What might I do to build on strengths/ overcome weaknesses?
- Why did I, or did I not, experience *difficulty working/interacting with other people*? What might I do differently next time to minimize such difficulties?
- What personal *skills* did I draw on in handling this situation? What personal skills would I like to have had in order to have handled it better and how might I develop them?
- How did this situation reveal my own *attitudes or biases*, toward other people, toward the organization in question, etc.? Do I need to make any changes?

The DEAL model was developed by Dr. Patti Clayton of North Carolina State University http://www.ncsu.edu/cece/resources/deal_model.php. Dr. Clayton references Kiser’s Integrative Processing Model in the original document.

Appendix IX: Sample Internship Evaluation Form

**Roanoke College
Health and Human Performance Department
Internship Evaluation Form**

College Supervisor: _____

Name of Intern: _____

Dates of Internship: _____

Internship site: _____

Name of On-Site Supervisor: _____

On-Site Supervisor Title: _____

Office Phone: _____

Instructions for Evaluation:
Place an "X" for the appropriate response for each statement.

- 1 - Rarely/poorly displays characteristic
- 2 - Occasionally displays characteristic
- 3 - Frequently displays characteristic
- 4 - Always displays characteristic
- NA - Not Applicable

I. Performance and Attitude

	4	3	2	1	NA
1. Does quality work	_____	_____	_____	_____	_____
2. Shows organization skills	_____	_____	_____	_____	_____
3. Displays dependability	_____	_____	_____	_____	_____
4. Takes/shows initiative	_____	_____	_____	_____	_____
5. Has ability to solve problems	_____	_____	_____	_____	_____
6. Ability to work independently	_____	_____	_____	_____	_____
7. Demonstrates strong communication skills	_____	_____	_____	_____	_____
8. Completes assignments on time	_____	_____	_____	_____	_____
9. Accepts assignments willingly	_____	_____	_____	_____	_____

Appendix X: NSSE Survey Questions



National Survey of Student Engagement 2011

The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: or

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Come to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Tutored or taught other students (paid or voluntary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Participated in a community-based project (e.g., service learning) as part of a regular course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Used e-mail to communicate with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Discussed grades or assignments with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Talked about career plans with a faculty member or advisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Discussed ideas from your readings or classes with faculty members outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Received prompt written or oral feedback from faculty on your academic performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very often	Often	Some-times	Never
r. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Applying theories or concepts to practical problems or in new situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 During the current *school year*, about how much reading and writing have you done?

- a. Number of assigned textbooks, books, or book-length packs of course readings
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| None | 1-4 | 5-10 | 11-20 | More than 20 |
- b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| None | 1-4 | 5-10 | 11-20 | More than 20 |
- c. Number of written papers or reports of **20 pages or more**
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| None | 1-4 | 5-10 | 11-20 | More than 20 |
- d. Number of written papers or reports **between 5 and 19 pages**
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| None | 1-4 | 5-10 | 11-20 | More than 20 |
- e. Number of written papers or reports of **fewer than 5 pages**
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| None | 1-4 | 5-10 | 11-20 | More than 20 |

4 In a *typical week*, how many homework problem sets do you complete?

- | | | | | | |
|--|------|-----|-----|-----|-------------|
| | None | 1-2 | 3-4 | 5-6 | More than 6 |
| | ▼ | ▼ | ▼ | ▼ | ▼ |
- a. Number of problem sets that take you **more than an hour** to complete
- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- b. Number of problem sets that take you **less than an hour** to complete
- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

5 Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.

- | | | | | | | | | |
|-------------|--|--|--|--|--|--|--|-----------|
| Very little | | | | | | | | Very much |
| ▼ | | | | | | | | ▼ |
- | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

6 During the current school year, about how often have you done each of the following?

- | | | | | |
|--|------------|-------|-----------|-------|
| | Very often | Often | Sometimes | Never |
| | ▼ | ▼ | ▼ | ▼ |
- a. Attended an art exhibit, play, dance, music, theater, or other performance
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- b. Exercised or participated in physical fitness activities
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- d. Examined the strengths and weaknesses of your own views on a topic or issue
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- f. Learned something that changed the way you understand an issue or concept
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

7 Which of the following have you done or do you plan to do before you graduate from your institution?

- | | | | | |
|--|------|------------|-------------------|------------------|
| | Done | Plan to do | Do not plan to do | Have not decided |
| | ▼ | ▼ | ▼ | ▼ |
- a. Practicum, internship, field experience, co-op experience, or clinical assignment
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- b. Community service or volunteer work
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- c. Participate in a learning community or some other formal program where groups of students take two or more classes together
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- d. Work on a research project with a faculty member outside of course or program requirements
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- e. Foreign language coursework
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- f. Study abroad
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- g. Independent study or self-designed major
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
- h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)
- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

8 Mark the box that best represents the quality of your relationships with people at your institution.

- a. Relationships with **other students**
- | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| Unfriendly, Unsupportive, Sense of alienation | | | | | | | | Friendly, Supportive, Sense of belonging |
| ▼ | | | | | | | | ▼ |
- | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
- b. Relationships with **faculty members**
- | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|---------------------------------|
| Unavailable, Unhelpful, Unsympathetic | | | | | | | | Available, Helpful, Sympathetic |
| ▼ | | | | | | | | ▼ |
- | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
- c. Relationships with **administrative personnel and offices**
- | | | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|--------------------------------|
| Unhelpful, Inconsiderate, Rigid | | | | | | | | Helpful, Considerate, Flexible |
| ▼ | | | | | | | | ▼ |
- | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

9 About how many hours do you spend in a typical 7-day week doing each of the following?

- a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
- b. Working for pay **on campus**
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
- c. Working for pay **off campus**
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
- d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
- e. Relaxing and socializing (watching TV, partying, etc.)
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
- f. Providing care for dependents living with you (parents, children, spouse, etc.)
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week
-
9. Commuting to class (driving, walking, etc.)
- 0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30
- Hours per week

10 To what extent does your institution emphasize each of the following?

- | | Very much | Quite a bit | Some | Very little |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Spending significant amounts of time studying and on academic work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Providing the support you need to help you succeed academically | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Helping you cope with your non-academic responsibilities (work, family, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Providing the support you need to thrive socially | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Using computers in academic work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

- | | Very much | Quite a bit | Some | Very little |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Acquiring a broad general education | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Acquiring job or work-related knowledge and skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Writing clearly and effectively | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Speaking clearly and effectively | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Thinking critically and analytically | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Analyzing quantitative problems | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Using computing and information technology | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Working effectively with others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Voting in local, state, or national elections | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Learning effectively on your own | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Understanding yourself | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Understanding people of other racial and ethnic backgrounds | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Solving complex real-world problems | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Developing a personal code of values and ethics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Contributing to the welfare of your community | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p. Developing a deepened sense of spirituality | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

- Excellent
 Good
 Fair
 Poor

13 How would you evaluate your entire educational experience at this institution?

- Excellent
 Good
 Fair
 Poor

14 If you could start over again, would you go to the same institution you are now attending?

- Definitely yes
 Probably yes
 Probably no
 Definitely no

15 Write in your year of birth:

16 Your sex:
 Male Female

17 Are you an international student or foreign national?
 Yes No

18 What is your racial or ethnic identification? (Mark only one.)
 American Indian or other Native American
 Asian, Asian American, or Pacific Islander
 Black or African American
 White (non-Hispanic)
 Mexican or Mexican American
 Puerto Rican
 Other Hispanic or Latino
 Multiracial
 Other
 I prefer not to respond

19 What is your current classification in college?
 Freshman/first-year Senior
 Sophomore Unclassified
 Junior

20 Did you begin college at your current institution or elsewhere?
 Started here Started elsewhere

21 Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)
 Vocational or technical school
 Community or junior college
 4-year college other than this one
 None
 Other

22 Thinking about this current academic term, how would you characterize your enrollment?
 Full-time Less than full-time

23 Are you a member of a social fraternity or sorority?
 Yes No

24 Are you a student-athlete on a team sponsored by your institution's athletics department?
 Yes No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 What have most of your grades been up to now at this institution?
 A B+ C+
 A- B C
 B- C- or lower

26 Which of the following best describes where you are living now while attending college?
 Dormitory or other campus housing (not fraternity/sorority house)
 Residence (house, apartment, etc.) within walking distance of the institution
 Residence (house, apartment, etc.) within driving distance of the institution
 Fraternity or sorority house
 None of the above

27 What is the highest level of education that your parent(s) completed? (Mark one box per column.)

Father	Mother
<input type="checkbox"/>	<input type="checkbox"/> Did not finish high school
<input type="checkbox"/>	<input type="checkbox"/> Graduated from high school
<input type="checkbox"/>	<input type="checkbox"/> Attended college but did not complete degree
<input type="checkbox"/>	<input type="checkbox"/> Completed an associate's degree (A.A., A.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a bachelor's degree (B.A., B.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a master's degree (M.A., M.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 Please print your major(s) or your expected major(s).

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR RESPONSES!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu. Copyright © 2010 Indiana University.

