

Summary

In conclusion, these data indicated that students prefer the traditional teacher-directed teaching style for learning laboratory exercises, but that they are capable of learning equally as well under either teaching method. Therefore, when resources such as teaching staff are limited in terms of introductory undergraduate laboratories, self-directed teaching may be an option.

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Selecting Students for Personal and Professional Growth Programs: The Bailey Scholars Experience

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Abstract

Current pedagogy recognizes the need to help students learn the cognitive, affective, social, and spiritual skills required by successful citizens and lifelong learners. The Bailey Scholars Program is a 21-credit-hour, undergraduate specialization (minor) in connected learning in the College of

¹ The outline for the Bailey Scholars Selection Process is the result of the work of the Summer 1997 Student Affairs Working Group, which included Robert Herner, Marquita Chamblee Jones, Pat Burkhardt and Jim Lucas. The implementation of the Bailey Scholars Selection Process is the result of the work of the Fall 1998 Student Affairs Working Group, which included Jim Lucas, Robert Herner, Marquita Chamblee Jones, Pat Burkhardt, Jim Oehmke, and Doreen Woodward. The Working Group would like to thank the Bailey Scholars Community for its help with this process.

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Agriculture and Natural Resources at Michigan State University. It is designed specifically to encourage student growth in those cognitive, affective, social and spiritual skills that are typically undeveloped in disciplinary majors. Bailey faculty designed a student selection process reflecting Bailey values, particularly that individual scholars would be learning in a community yet taking responsibility for their own learning journeys. The result was a self-selection process that provided various exposures of the Bailey learning style and community to student applicants, but ultimately relied on each student's judgement to determine if Bailey fit his/her individual needs. Both faculty and admitted students view the selection process as a success. The most important factor contributing to this success may be the close correspondence between the design and execution of the selection process, and Bailey values.

Introduction

Current pedagogy recognizes the need to help students learn the cognitive, affective, social and spiritual

often measures only factual recall and comprehension (Gardier, 1994); selection methods based on these perceptions or measures would indicate little about students' abilities in application, analysis, synthesis or evaluation, which are important to personal and professional growth. Lottery, modified lottery, and first-come-first served methods involve large random components. The first-come-first-served method also gives priority to those students with good information networks, which may be correlated with academic background and prior opportunity and lead to a 'rich getting richer' outcome.

Research by Agee (1991) suggests that students and faculty should work together in assessment processes. A student-centered process supports Bailey values, and is consistent with the goal that students themselves determine if they belong in Bailey. Following these thoughts and criteria, the SAC designed a three-stage process that emphasized student involvement and reflection. In the end, the SAC hoped that students would make the final decision about their own participation in Bailey.

Ultimately, three entrance criteria were selected:

1. Students must be enrolled in a major in the College;
2. Students must exhibit a strong commitment to Bailey, its values (including, community-based learning, and individual responsibility for one's learning journey). and learning within the fields of agriculture and natural resources. Students must be committed to finishing a degree in the College and completing the 21-credit specialization;
3. Students must exhibit a strong willingness to learn, grow, and interact within a community. Students must be willing to challenge and be challenged by new ideas, thoughts, and values.

The first criterion is an administrative mandate from the College, which provides the bulk of the funding for Bailey.

The selection process itself has three distinct phases. The first phase provides information to students through mailings, events such as the University's "Meet Your College" activity and a Bailey Open House, visits to classes and student groups, and through academic advisors. Overall, students are encouraged to learn as much about Bailey as possible through our materials, web page, and personal discussions.

The second phase is the application. All students completed application, answering five of nine questions. All students answered the question:

1. Why would you like to be a Bailey Scholar and how will you incorporate this experience into your personal and professional life?

Students then selected two questions from each of two categories (four total):

Category 1 (personal development)

2. Construct a recommendation for yourself for entry into the Bailey Scholars Program.
3. Describe yourself now and your "ideal" self in ten years.
4. Discuss a major life event. How did it influence you?
5. What does diversity mean to you, and how does it impact your life?

Category 2 (professional development)

6. Why have you chosen to pursue study in an agriculture and natural resource field?
7. Related to your academic major, what is a challenge facing the field of agriculture and natural resources (as indicated by the media, your readings, your previous coursework, etc.)?
8. In your opinion, what is a significant issue of personal concern in agriculture and natural resources. Please explain your statement.
9. In your own words, what does it mean "to make significant professional and civic contributions to the management and stewardship of our agriculture and natural resources"?

Students could submit their answers in a variety of formats, including written, oral, audio, video or Internet. Despite these options, all students completed written responses for their application.

The third phase began the student immersion in Bailey. Students attended two dinner sessions with the current Bailey Scholars. Students sat at a dinner table with 5 - 6 other applicants and faculty. After a brief warm-up activity, the students and faculty discussed the questions students had chosen to answer in their application to identify issues of importance to them. From this list, the full group brainstormed potential learning experiences. At the second dinner, students again sat with faculty, although the groups were not the same as the previous week. After a brief warm-up activity, the students and faculty reviewed the learning activities from the first week. Picking one or two activities, each table designed a learning experience and presented it to the full community for feedback. The immersion arises from students taking responsibility for their own learning, from the large-group response to student ideas, and from the students' reactions to this response.

Results and Outcomes of the Selection Process

Nineteen students applied to the program. Three students failed to complete the whole process, and one student decided not to accept the invitation to join the

Table 1. Pro's and Con's of Student Selection Methods

<i>Method</i>	<i>Pro's</i>	<i>Con's</i>
<u>Standard process</u> interview; focus on grades, experience, leadership positions or other objective criteria.	<ul style="list-style-type: none"> • Familiar and "safe" method of selection • Decisions based on objective criteria • Easily justified to external audience 	<ul style="list-style-type: none"> • Contrary to Bailey ethos; Bailey is not about GPA or knowledge retention • May hamper diversity of major, background, etc. • Fails to help students truly understand Bailey prior to admission • Limits access to traditional achievers
<u>First-come-first-serve</u> allow first X-number of students who apply into the program.	<ul style="list-style-type: none"> • Avoids making decisions on "non-Bailey-like" criteria • Avoids judging whether a student is "good-enough," which is contrary to the Program's essence and mission • Simple to administer 	<ul style="list-style-type: none"> • Gives an advantage to students with better access to information (e.g. via clubs, advisors, fraternities/sororities, etc.) • Fails to account for the "late-bloomer" • Fails to help students truly understand Bailey prior to admission • Logistical problems: Can students sign up their friends? Do we create a waiting list? • Fails to allow for diversity of student population • Raises questions about the program's worth and credibility
<u>Lottery</u> --randomly select from a pool of all applicants.	<ul style="list-style-type: none"> • Avoids making decisions on "non-Bailey-like" criteria • Avoids judging whether a student is "good-enough." • Simple to administer • Takes into consideration the late-bloomer issue • Provides a random sample of the student population 	<ul style="list-style-type: none"> • Decisions based on chance • Fails to help students truly understand Bailey prior to admission • May or may not ensure diversity • Students may feel as if they need a justification for not getting in • Raises questions about program credibility
<u>Stratified lottery</u> Standard selection for all applicants, selecting the obvious candidates and use lottery as "wild card" to select a certain percentage.	<ul style="list-style-type: none"> • Combines criteria-based process with random selection • Allows for selection of a diverse community • Helps deal with applicants who fall into the criteria's gray-area 	<ul style="list-style-type: none"> • Same problems as the lottery; students may find this an unfair way to select • Still has the criteria-based problems inherent to any selection procedure • Fails to help students truly understand Bailey prior to admission
<u>No selection</u>	<ul style="list-style-type: none"> • Fits Bailey ethos: if they want to be in, let them in • Avoids criteria and hurting students' feelings 	<ul style="list-style-type: none"> • Fails to limit numbers if needed • Fails to help students truly understand Bailey prior to admission • Raises questions about program credibility

community. Of the three men and 12 women who did accept, seven were freshmen, six were sophomores, one was a junior and one was a senior. The junior and senior are transfer students, and they expect to take longer than four years to finish their degree. The percentage of women is substantially higher than the percentage in the College; minority representation is slightly lower than in the College. Two of the students were honor students; additionally, each of these two won an outstanding student award this semester. Two of the students were on academic probation.

Of the 17 majors in the College, the students represented eight of them by the end of the year (Table 2). Some students changed their major during the program as a result of their work with Bailey and other factors. Bailey contains a relatively large percentage of horticulture and agri-science education or communications students. This is probably because Bailey faculty and staff, based in these departments, teach the introductory courses for each major and serve as the academic advisors for each department. Also, Bailey may appeal to education majors more than some of the College's more technical disciplines.

Self-selection occurred at two stages of this process. Considerable selection happened during the first,

informational stage of the selection process. Individuals seeking to pad their resume, find a new major, or access additional scholarship funds quickly became disinterested. For example 28 students invested time and energy to attend the open house. Of these, eight went on to complete an application and become Bailey scholars (seven of the current scholars did not attend). Although some of the remaining students took written materials with them, none of them submitted an application.

Additional selection occurred during the immersion process. Even though the carrying capacity of the program is sufficient to have admitted all students who started the application process, four of those dropped out. One student, who in the eyes of the faculty would make an excellent Bailey scholar, chose not to participate because she is committed to a number of extra curricular activities and is not able to make as full of a commitment to the Bailey community as she would like. One student dropped out because she decided that she just was not that interested in agriculture and natural resources; she also changed her major. A third student was not prepared to take the level of responsibility for his education as needed in Bailey.

Table 2. Bailey Scholar Majors, January and May 1998.

Major	January 1998	May 1998	Major	January 1998	May 1998
ANR-No Preference	1	0	Fisheries & Wildlife	2	1
Agribusiness Management	0	0	Food Industry Management	0	0
Agriscience (Education)	2	3	Food Science	1	1
ANR-Communications	3	2	Forestry	0	0
Animal Science	0	0	Horticulture	4	4
Bio-systems Engineering	0	0	Packaging	2	2
Building Construction Management	0	0	Park, Recreation & Tourism Resources	0	1
Crop & Soil Sciences	0	0	Public Resource Management	0	0
Environmental Studies & Applications	0	1			

Student opinions

Students enjoyed the selection process, especially after the first dinner, when students realized that they had primary control over the process. Student feedback included:

They enjoyed having a choice of questions and the open format, but most students will write responses because writing is familiar.

Students liked the questions, but some were hard to answer with their limited experience.

They liked the dinner sessions with the faculty, but finding time for these sessions was difficult. They appreciated that the faculty offered rides to and from the events.

Most students found out about the program through ANR 110 (a Bailey service seminar for new students) or through a faculty member associated with the program.

Many students wanted to participate in the selection process next year.

Students felt fairly comfortable expressing their ideas, especially in the small groups.

The process helped students better to understand Bailey.

Lessons learned

The selection process has some biases. For example, the roundtable process favors students who become engaged in a short time, who are comfortable speaking in public, are naturally outgoing, or for other reasons perform well in a group setting. Bailey itself may also favor such students. The problem is that students who may greatly benefit from and contribute to Bailey will exclude themselves from the program based on their self-evaluation of their performance in the roundtables. The roundtables are not a test, they are a small step on the Bailey journey. To ameliorate the possible bias, Bailey makes extra efforts to draw out those students who are most reticent in large discussions. In two instances, students who said little in the large group were the *de facto* discussion leaders at their tables; a third person was noticeably more interactive at the table. Faculty can and do encourage such students to upgrade their self-evaluations. Informal interactions in one-on-one settings provide opportunities to encourage student decisions based on what students can bring to and learn from Bailey.

Should the number of applicants eventually exceed the carrying capacity—and for philosophical, pedagogical or logistical reasons it becomes impossible to expand capacity—one must question whether this process provides sufficient information for selection. For example, the most popular faculty evaluation was “take them all”!

Each member of the SAC reflected on who they thought

were the ten applicants ‘most suited’ to Bailey. Selection themes that appealed to the majority of the group members include commitment, honesty, dedication, need, purpose, openness and originality. It is unclear how a non-self-selection process could be based on these criteria. Also, some members selected to maximize diversity: e.g. these members selected all three men because there were only three.

Student responses to the first application question also contained some common themes:

Personalized learning--All students expressed a desire for a greater connection between their professional training and their personal interests. They wanted to learn how to learn.

Community--Students expressed a need for a community, of both other students and faculty, with whom they could discuss issues of importance to them. Many students feel isolated in large classes.

Diversity for growth--All students commented on the desire to work with a wide range of people from different backgrounds to promote their own learning and growth.

These SAC and student themes will provide a guide for the Fall 1998 selection.

Perhaps the most important lesson we have learned is that the success of the self-selection process for Bailey is attributable in large part to the close match between Bailey values and the design of the process. The process exposed Bailey values to students, and held students responsible for their own decisions about whether they want to participate in a learning environment based on these values. The self-selection process can indeed select individuals, and those who selected into Bailey are building a community of interdependent learners involved with personal and professional development.

The selection process to be used in Fall 1998 remains based on the ideal of self-selection. Several minor changes were made in the wording of the informational material and application, in part for clarity and in part to make these documents more congruent with the common themes noted above. Since written descriptions of the Bailey community tend to be cold and emotionless, the applicant is required to attend one of several informational sessions in person. However, the new student scholars feel that the selection process generally accomplished the goals of having students select themselves into Bailey on the basis of some preliminary experiences with the program and with the community-based, yet individually responsive and responsible, learning style of the program. The selection process itself remains intact, modified only to a minor extent to reach even closer agreement with Bailey values.

Summary

The Bailey Scholars Program is an undergraduate specialization in connected learning at Michigan State University. Bailey faculty desired a selection process reflecting Bailey values, particularly individuals learning in a community yet taking responsibility for their own learning journeys. A self-selection process was designed, and used successfully.

The Bailey selection process *per se* may be adaptable only to programs with similar values. However, the idea of designing a selection process that reflects the values and ethos of the program is likely to be a very important idea with appeal to institutions of higher education which move to include personal and professional development as part of the educational experience.

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The Use of Student Portfolios to Enhance Learning and Encourage Industrial Ties in Undergraduate Education

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Abstract

As educators are increasingly called upon to justify their effectiveness, the connection between educational programs and professional success is receiving greater scrutiny by students and other stakeholders (parents, future employers, etc.). We believe that student portfolios can play an important

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