

## INNOVATIONS IN TEACHING

### A Student Orientation Program to Build a Community of Learners

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**Objectives.** To describe and evaluate a new student orientation program designed to lay the foundations for a community of learners.

**Design.** A weeklong orientation program structured as the first week of an 18-week fall semester was held for the first-professional year class. Each of the activities supported program objectives and developed elements of a community of learners.

**Assessment.** Students' reflective portfolios, daily evaluations and final program evaluations provided evidence of development of a community of learners. Positive student observations included the use of technology, a discussion of the curriculum and experiential education, the use of reflective portfolios, and presentations from pharmacy practitioners. Students also appreciated becoming acquainted with the faculty, staff, and their peers in a non-threatening atmosphere. Some of the aspects rated as least helpful were the learning styles exercise, library tour, history of pharmacy session, and the overall length of the orientation.

**Summary.** A model for a new student orientation program that builds the foundations for the development of a community of learning, which is vital to preparing students to provide pharmaceutical care in interdisciplinary teams and become critical thinkers, was successfully established. This model could be implemented at other schools of pharmacy.

The revisions to the Accreditation Council for Pharmacy Education's Standards 2000 and newly approved guidelines that become effective in 2007 advocate that pharmacy graduates should be able to provide pharmaceutical care in cooperation with patients, prescribers, and other members of an interprofessional health care team, and promote health improvement, wellness, and disease prevention.<sup>1</sup> ACPE Standards emphasize that graduates must be able to *communicate* and *collaborate* with various persons in order to engender a *cooperative* team approach to patient care. We refer to these as the "3C's of Community." The standards also advocate teaching and learning methods that engage students as active, self-directed learners, and foster the development and maturation of critical thinking and problem-solving skills that meet the diverse learning needs of students. The Institute of Medicine (IOM) has also advocated a health professions competency in which students work in interdisciplinary teams.<sup>2</sup>

Achievement of these outcomes requires a unique learning environment. It is our premise that this richer

learning environment would take place when the students are empowered with the vision, mission, and goals of the school of pharmacy as a community of learners. This article describes and evaluates a student orientation program designed to lay the foundations for building a community of learners.

A community of learners as described by Selznik<sup>3</sup> as well as Misanchuk et al<sup>4</sup> is a cohort of persons who share 7 elements of a community: *history, identity, mutuality, plurality, autonomy, participation, and integration*. Instead of sharing simply general interests, a strong community should share *history and culture*, as well as an *identity*. *Mutuality* implies interdependence and reciprocity, which is demonstrated in collaborative and cooperative learning activities. *Plurality*, social interaction among the participants of the community, is a necessary component for team-building to occur. Social and scholarly *participation* is crucial for active engagement of all learners. At the same time, *autonomy* or individual identity should be encouraged and recognized. Finally, there must be *integration* of all these characteristics so that everyone is working in an interprofessional environment. In *Creating a Community of Learners*, Elam and Duckenfield provide useful insights into defining a community of learners where the "teacher as a facilitator" is used as a model and where people continually learn from

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one another.<sup>5</sup> An emphasis on team learning is critical because deeper learning occurs when groups, not individuals, are the learning unit in today's organizations. This article will illustrate how the New Student Orientation program developed the elements of community.

In accordance with this and the 3 C's of Community model, Southern Illinois University Edwardsville (SIUE) has a rich history of creating a "community of faculty" with its 2-week new faculty orientation program.<sup>6</sup> SIUE transitioned from a 2-day new faculty orientation to a 2-week orientation in the mid-1990s. One of the reasons for this change was the development of new criteria for promotion and tenure that included meritorious teaching as a minimum requirement for teaching. The overall purpose was to introduce the new faculty to the values and practices of SIUE, while providing the tools and assistance to begin a successful career. Through this process, the hope is that the new faculty will develop a sense of community with their new colleagues and other members of the University and initiate collaborations as a result of the event. Along the tradition of the successful new faculty orientation at SIUE, the same sense of community and engagement could be developed among our "inaugural class" of students during the fall of 2005. Eighty-two students matriculated into the doctor of pharmacy program. Fifty-four percent were women; 93% were Illinois residents; 36% had prior degrees; and 19% represented minority groups. The curricular structure of the School was designed with a model 18-week semester. The first-professional year fall semester consists of a week-long orientation program, 14 weeks of traditional course work, a 2-week introductory pharmacy practice experience midway in the course work, and a final week of assessments and examinations.

The Offices of Student and Academic Affairs collaborated to plan the week-long new student orientation program. The School's Director of Instructional Strategies also participated in the planning process. The new student orientation schedule is summarized in Appendix 1.

Numerous technology resources facilitated the development of the community of learners. The School provides a laptop computer to each pharmacy student. Also, classrooms are equipped with Sympodium, LCD projector, Accordent presentation system, and a document camera. SIUE uses *Blackboard* as its course management system. The new student orientation program is set up on *Blackboard* like a traditional web-assisted course.

The goal of the orientation program is to develop responsible partners in the learning process by nurturing communication, cooperation, and collaboration among the students and faculty members. The specific objectives or learning outcomes were:

- (1) facilitate activities in students getting to know each other and the faculty;
- (2) support group identity while respecting individuality;
- (3) empower students to the culture and values of SIUE;
- (4) develop collaboration between students and faculty members;
- (5) prepare students for their first semester of formal classes; and
- (6) prepare students for reflective learning.

These objectives were consistent with elements of a community of learners (Table 1).

## DESIGN

The relationships between the objectives of the new student orientation program, the elements of community, and specific examples of the instructional materials used in the orientation are summarized below. Copies of instructional materials can be obtained by contacting the authors.

### Identity

Numerous activities were designed to foster the sharing of identity and support objectives 1, 2, and, 3. Students submitted their biographies using *Blackboard*. Student biographies included a photo, hometown, e-mail address, and any other information they wanted to share such as hobbies, interests, pharmacy experiences, etc. Note that consent for collection of personal information for educational purposes was obtained in accordance with Southern Illinois University Edwardsville's Institutional Review Board regulations. A getting-to-know each other exercise was conducted. We used an exercise called Human Bingo. An academic affairs presentation on the educational outcomes, curricular structure, and curriculum introduced the students to the concept of a "community of learners" and the School's vision, mission, and goals. A commitment to life-long learning was emphasized as the curriculum was highlighted. Sharing of identity was facilitated by hosting a sponsored luncheon where faculty members were introduced to students and an ice cream social where faculty mentors and student mentees were introduced.

### History and Culture

A keynote address about the history and culture of pharmacy was presented to the students. Dr. Dennis Worthen, Lloyd Scholar of the Lloyd Library, presented "Can Do: Vignettes of American Pharmacy History" at the first new student orientation. This presentation allowed students to reflect on the past, present, and future

Table 1. New Student Orientation Activities Supporting Elements of Community and Program Objectives

<b>Element of Community</b>	<b>Objectives</b>	<b>New Student Orientation Activities</b>
Identity	<ul style="list-style-type: none"> <li>• Facilitate students getting to know each other and the faculty.</li> <li>• Support group identity while respecting individuality.</li> <li>• Empower students to the culture and values of SIUE.</li> </ul>	Student submission of biography Human bingo Presentation on curriculum, School of Pharmacy vision, mission, and goals Luncheon with faculty Mentor-mentee ice cream social Professional organization team assignment
History and Culture	<ul style="list-style-type: none"> <li>• Support group identity while respecting -individuality.</li> </ul>	History presentation Professionalism presentation Experiential education presentation including pharmacist presentations
Mutuality	<ul style="list-style-type: none"> <li>• Empower students to the culture and values of SIUE.</li> <li>• Develop collaboration between students and faculty.</li> </ul>	Cooperative and collaborative learning activities Discussion board on Blackboard Input on curriculum Input on characteristics of good professor and good student Pharmacist Inventory of Learning Styles (PILS) Self reflection on how to learn and how to work in group Professional organization assignment Academic case studies discussion Assessment session and providing constructive feedback Interdisciplinary Education Perception Scale (IDEP)
Plurality	<ul style="list-style-type: none"> <li>• Facilitate students getting to know each other and the faculty.</li> <li>• Develop collaboration between students and faculty.</li> </ul>	Sponsored luncheons Ice cream social Evening picnic Informal gatherings of students
Autonomy	<ul style="list-style-type: none"> <li>• Support group identity while respecting individuality.</li> <li>• Empower students to the culture and values of SIUE.</li> </ul>	Diversity awareness Mentoring session Individual self reflection (good professor, good student, curricular input, teaching and learning styles)
Participation	<ul style="list-style-type: none"> <li>• Prepare students for their first formal class.</li> <li>• Facilitate students getting to know each other and the faculty.</li> <li>• Develop collaboration between students and faculty.</li> </ul>	Use of technology Discussion board activities Submission of assignments Quizzes and surveys Online chat discussion Group discussions Think-pair shares Heterogeneous groups Constructive feedback Diversity awareness session
Integration	<ul style="list-style-type: none"> <li>• Prepare students for reflective learning.</li> </ul>	Reflective learning portfolio

of the profession and also introduced the contributions of the early leaders in the profession. The introduction to the traits of a professional pharmacist, activities that enhanced professionalism, and the professional pharmacy organizations also facilitated this element of

community. An introduction to experiential education and brief presentations by pharmacists from long-term care, chain pharmacy, hospital/clinical practice, and industry also helped build community and supported objective 2.

### **Mutuality**

The element of mutuality, which implies interdependence and reciprocity, was promoted using numerous cooperative and collaborative learning activities. These activities supported objectives 3 and 4. The discussion board on *Blackboard* was used to facilitate students' input on the curriculum, characteristics of a good professor and good student, and teaching and learning methods that work and do not work for each of them. The Pharmacist Inventory of Learning Styles (PILS) was administered.<sup>7</sup> This instrument provided students with self-reflection on how they learned and how they worked within a group. A group assignment in which students were asked to review the web sites of various professional pharmacy organizations and identify activities that enhanced professionalism also fostered mutuality and group identity. The group submitted a team report and presented their findings to the class.

In the instructional strategies session, students were asked to work in groups of 5 to 6 on 2 academic case studies with faculty members facilitating the small groups. The purpose of this session was to introduce the students to case study and collaborative teaching/learning. It enables them to discuss situations that they might face in their academic career and to work on solutions with their peers. The session on assessment and providing constructive feedback established the foundation for the development of collaboration. This session addressed the roles of a successful student and professor and demonstrated the art of providing and receiving constructive feedback. It served to remind students of the importance of being actively engaged and enthusiastic about classes. Students' willingness to be active participants in classes can positively affect the quality of discussions and provide an opportunity for learning, which can ultimately impact instruction and grades.<sup>8</sup> Students also completed the Interdisciplinary Education Perception Scale (IDEP) that provided an assessment of perceptions required for interdisciplinary work and served as a reminder of the spirit of interprofessional cooperation needed in the pharmacy profession.<sup>9</sup> The Interdisciplinary Education Perception Scale (IDEP) measures 4 attitudes important for interdisciplinary work: factor 1 is competence and autonomy; factor 2 is perceived need for cooperation; factor 3 is perception of actual cooperation; and factor 4 is understanding others' value and contributions. A panel of pharmacy practitioners also introduced how the profession interacts with other health care professionals such as physicians and nurses. The IDEP scale, coupled with the practitioner panel, allowed students to see if their perceptions and the experiences of professionals in the field were in alignment with each other.

### **Plurality**

Plurality implies social interaction. Numerous social activities were planned during the new student orientation. These included 3 sponsored luncheons, an ice cream social where students met their faculty mentor, and an evening picnic. As part of a natural process, students were encouraged by organizers to gather informally for dinner during the week and for fun time at the student arcade. These activities addressed objectives 1 and 4.

### **Autonomy**

Autonomy implies individual identity. This element supports the NSO objectives 2 and 3. A session on diversity awareness was facilitated by the Assistant Provost for Cultural and Social Diversity of Southern Illinois University Edwardsville. During this session, an exercise of the right hand/left hand dominance adapted from Sonnenschein's "The Diversity Took Kit" was performed.<sup>10</sup> This activity and others allowed students to experience moments outside their comfort zone. Students were also asked to take a diversity awareness demographics knowledge quiz. They also listened to and discussed lyrics of songs that perpetuate stereotypes. The session on mentoring also laid the foundation for individual identity. Behind the scenes, faculty members were asked to review Haines article on the mentor-protégé relationship to better prepare them for this collaboration.<sup>11</sup> The students' self-reflection on traits of a good professor and good student, teaching and learning styles, and input on the curriculum also encouraged respect for individuality.

### **Participation**

The use of various learning modalities facilitated meeting objective 5. Many of these modalities involved active learning, including the use of think-pair shares and heterogeneous group work, which also fostered the development of mutuality. The use of technology facilitated participation in discussions and other class activities. Students were prepared for the technology skills required for their courses through a presentation on how technology was used to support learning. Numerous activities throughout the week using *Blackboard* also expanded on this. The use of the discussion board and asynchronous communication was illustrated during 2 activities. In the first, students provided suggestions for an elective offering for the curriculum and reflected on a key point learned about the School's curriculum. The second activity involved the discussion on PILS, where input on teaching and learning methods that work best and methods that do not work were solicited. Students were also asked to submit various assignments using *Blackboard*. This included the professional organization report and the

reflective portfolio. The students completed quizzes and surveys using *Blackboard* including PILS, IDEP, and evaluations of various components of the new student orientation.

The “collaboration tool” on Blackboard was used to illustrate synchronous communication and online discussions. This illustrated how learning is a continuous process and that the computer is not only a cultural communication tool but a tool for learning and collaboration.<sup>12</sup> As part of the IDEP exercise, students were asked to conduct a chat session and discuss whether they agreed or disagreed with the statement, “Individuals in my profession are able to work closely with individuals in other professions.” Students were assigned to groups of 6 to 7 students for the chat session and become actively engaged in the exercise. It demonstrated that students who are active in an online community by contributing to postings, initiating debates, and synthesizing other’s submissions were increasing their own awareness as well as that of their peers.<sup>12</sup> Sessions such as this also facilitated students getting to know each other. This activity addressed objective 1.

### **Integration**

The element of integration which brings together the previous 6 elements of community was accomplished using the student reflective learning portfolio. This part of the orientation addressed objective 6. Students learned what portfolios are, how portfolios are used in the School of Pharmacy, and the process for keeping a portfolio. The students gained actual experience in doing a reflective portfolio by contemplating various components of the orientation program. (Appendix 2).

### **Evaluation of Learning and Achievement of Objectives**

To determine the effectiveness of the new student orientation program and to provide feedback for future improvement of the program the following were conducted:

- A poll was taken of how many classmates each student knew by name after 3 days of the orientation program
- Students were asked to construct a portfolio which included reflections on:
  - Perceptions of role as member of community of learners
  - Shared values of students and faculty
  - Intriguing comments learned about history of pharmacy
  - Pharmacy practice roles

- Differences between profession and occupation
- Purpose of providing constructive feedback
- How technology supports learning
- How a reflective portfolio is useful in learning

### **ASSESSMENT**

The first step in building a community of learners was for students to get to know each other. The framework for achieving objective 1 was accomplished. After 3 days of orientation and prior to the evening social picnic, students were asked in a note-card survey to estimate how many classmates they knew by name. The range was 4 to 45 out of 82 students with an average of 17 students.

Student evaluations indicated the most useful thing from day 1 was meeting other pharmacy students. Many saw the day as an “environment icebreaker” where they got a chance to get familiar with everyone in the class and faculty members. Other common comments were: “highly important for us to work together as a community,” “learning how important group learning and teamwork are in the profession,” “the insights into the curriculum and expectations for the next 4 years are most useful.” One student stated, “Knowing everything that we learn is directly related to what we need to know as pharmacists is most useful.”

When evaluating the students’ perceptions of their role as a member of the community of learners, there was an almost universal response that the new student orientation week had a positive impact on their perception of their role as a member of the community of learners.

The orientation introduced students to the history and culture of pharmacy. This was exemplified by their comments: “The history of pharmacy enlightened me to the commitment we are making as we begin this journey.” “The history has brought us to another level of excitement to become a leader in the field.” Objective 2 of supporting group identity can also be evaluated in terms of student comments about new things learned that are unique about pharmacy practice roles. Students’ descriptions of their realizations of differences between a profession and an occupation also suggested this objective was met. Prior to the new student orientation, many students had no realization that there was a difference.

Day 2 evaluations indicated that students perceived the presentations by practicing pharmacists from 4 different areas (community pharmacy, hospital and clinical practice, long-term care and industry) as one of the highlights of the orientation and made them more excited about the profession. “It helped to turn the wheels in thinking about future roles that could be taken.” “It was great to hear from actual pharmacists.” “I got a broad

vision of different roles of pharmacists.” Again, this suggests development of the history and culture crucial to a community of learners, and ultimately, respect for individuality.

Students were asked to define diversity as presented by the Assistant Provost for Cultural and Social Diversity. One student wrote, “It is not just getting along and coexisting, but instead about becoming a community and learning from each other.” Another student stated, “It is an essential need of society that will better the human race.” The majority of students were able to recognize that diversity is not just about race or gender, but an overall respect for individual differences. Also, the majority of students indicated that their perceptions of diversity changed after the presentation. Students were given a baseline diversity awareness quiz.<sup>10</sup> The average score on the quiz was 9.4 out of 22 or 43% (score range: 4 to 19, or 18% to 86%). Students were also asked what values were important to them that they felt were shared by members of the School of Pharmacy. These values were consistent with SIUE values and the School’s mission and goals. The diversity presentation mentioned above also helped inculcate the culture and values of SIUE. Thus, objective 3 was achieved.

The administration of the Pharmacists Inventory of Learning Styles (PILS) helped students to learn the type of teaching styles that benefit them. The PILS was administered to all new students and the dominant learning style identified (nearly 55% of the students) was the “producer.” The description provided by Austin<sup>7</sup> indicates this person as preferring to work by him- or herself and observe and learn from others. Producers are organized, rule-oriented, attentive-to-details, patient, and fair-minded. This learning style’s valuing of organization and attentiveness to detail is consistent with skills and traits desired for pharmacists. The PILS identified over 25% of the students as having a “director” learning style, defined as someone who prefers a high-performance,

high-energy, fast-paced environment. Directors are practical, leaders, action-oriented, purposeful, and networkers. About 1% of the students were identified as enactors, learners who are entrepreneurial-spirited, and enjoy dealing directly with people. Enactors are opportunistic, intuitive, goal-oriented, active, and down-to-earth. About 6% were identified as having the learning style of “creators,” those learners who enjoy “out of the box” environments and can deal with complex, ambiguous, theoretical situations. Creators are creative, peacemakers, people-oriented, open minded, and free-spirited. Twelve percent of the class did not illustrate a dominant learning style, but had elements of at least 2 learning styles. The class broke into smaller groups of same dominant learning styles and discussed what teaching and learning methods work and do not work best for them. The conclusion reached by the class is that the responses to these questions vary depending on the issue.

The findings from/results of a baseline assessment of our inaugural class determined on the IDEP are presented in Table 2. The mean scores were compared to a group of other health care professionals reported in the literature using a z-test.<sup>9</sup>

The students were required to maintain a reflective portfolio about the elements of a community of learners. In response to the question regarding students’ value of the reflective portfolio one student indicated, “It made me stop and think about everything we did during the week. When time is taken for reflection, things acquire more value and importance. Reflecting makes things mean more to me.” Other students commented “sometimes looking back can help you in moving forward,” “I learned the value of maintaining a portfolio as a learning tool and as a measurement of progress in achieving professional goals.” “Portfolios are important for school, work placement, and in our lives.”

Results of evaluations conducted during orientation week are summarized in Table 3. A final evaluation was

Table 2. Comparison of Mean (SD) Interdisciplinary Education Perception Scale Scores of Entering First-Professional Year Pharmacy Students Compared with Scores From a Sample Group

Group	Factor 1, Mean (SD)	Factor 2, Mean (SD)	Factor 3, Mean (SD)	Factor 4, Mean (SD)
First-professional year pharmacy students (n = 81)	84.4 (6.6)*	66.6 (6.4)*	63.2 (6.9)*	52.2 (10.2)*
Sample group of other health care professionals (n = 143) <sup>†</sup>	73.5 (8.9)	64.3 (8.4)	76.1 (8.2)	48.5 (9.1)

Factor 1 = Competence and Autonomy; Factor 2 = Perceived Need for Cooperation; Factor 3 = Perception of Actual Cooperation; Factor 4 = Understanding Other’s Valued Contributions.

\*SIUE pharmacy students’ mean score for this factor was significantly different from that of a sample group of other health professionals based on results of the z-test,  $p < 0.05$ .

<sup>†</sup>The mean and SD values used for comparison were obtained from an article by Luecht et al.<sup>9</sup>

Table 3. First-Professional Year Pharmacy Students' Evaluations of New Student Orientation Sessions (n = 82), %

Item and Rating	Day 1	Day 2	Day 3	Day 4
Usefulness of content				
Excellent	33.8	50.7	50.0	23.8
Good	57.4	46.5	40.8	63.8
Acceptable	8.8	2.8	9.2	10.0
Effectiveness of presenters				
Excellent	50.0	60.6	69.7	35.0
Good	45.6	36.6	25.0	53.6
Acceptable	2.9	2.8	5.3	10.0
Overall effectiveness of session				
Excellent	27.9	49.3	52.6	22.5
Good	66.2	46.5	39.5	65.0
Acceptable	5.9	4.2	7.9	11.3

Percentages do not add up to 100.0% because not all items were answered by all respondents.

conducted on the last day regarding the most helpful sessions of the orientation. Some student observations included the use of technology, a discussion of the curriculum and experiential education, the use of reflective portfolios, and presentations from pharmacy practitioners. Students also appreciated becoming acquainted with the faculty, staff, and their peers in a non-threatening atmosphere. The learning styles exercise, the library tour, the history of pharmacy and the overall length of the orientation were noted as some of the least helpful sessions.

## DISCUSSION

The numerous social interactions during orientation week helped in the building of a community. We anticipated that as the semester evolved, students would build stronger bonds of community as they share each other's experiences and trials. Several cooperative and collaborative learning activities fostered the element of mutuality. Students were reaffirmed that they all need to work together and support each other in this community. The students recognized that they would learn from their peers as well as from the faculty. They also commented on the importance of communication and working together. The session on providing constructive feedback and communicating with professors was found extremely interesting and helpful, as students indicated these are great life skills.

Our first-professional year pharmacy students scored significantly higher on the competence and autonomy, perceived need for cooperation, and understanding of others' values factors on the IDEP instrument. We believe that the activities during the orientation week could have contributed to these perceptions and it puts

the students in a good mindset for formal classes in the curriculum. Our students scored significantly lower on perception of actual cooperation. This result is expected since our students do not have as much "real life" experience as the sample of health care professionals.

The entire *structure* of the new student orientation program was successful, based on our observations and the student evaluations and reflective portfolios of the program. However, the elements that had the most impact included: (1) modeling of attitudes of caring, professionalism, and shared values among students and faculty members; (2) modeling active-learning strategies that develop collaboration between students and faculty; (3) preparing students for reflective learning with the students doing a reflective portfolio during the orientation; (4) hands-on use of technology relevant to their future course work including exercises in *Blackboard*; and (5) the numerous activities that facilitated students and faculty members getting to know each other.

Since the implementation of the new student orientation program, School of Pharmacy faculty members have observed that new students are quite enthusiastic during their first semester and have bought into the culture and values of the School. Attendance in courses has been outstanding. Overall, the fall semester academic successes in this inaugural class have been extremely heartening. Other follow-up activities that nurture a community of learners have continued with much acceptance by students.

Classroom participation and collaboration have been noted in every course. Evidence to support the development of collaboration was seen when the students were asked to provide end-of-term course evaluations. The overall response rate was 96.5% for the 6 courses evaluated (range: 93.9% to 98.7%). A town hall meeting with the Dean at the end of the term also provided useful constructive feedback. The value placed by the School on collaboration and students' input was appreciated.

Based on the discussion following the PILS, students felt the results of the inventory were unclear and that many of the responses were dependent on situational factors. While it is important for students to recognize their dominant learning styles and teaching preferences for both their academic and professional lives, the administration of the PILS may not have achieved this goal. Other scales such as VARK (visual, aural, read/write, and kinesthetic)<sup>13</sup> or the Myers-Briggs Type Inventory<sup>14</sup> will be evaluated for future orientation programs. We felt a sense of community building throughout the week, but posting student biographies on *Blackboard* earlier during the orientation week would have enhanced this process at a faster pace. This will be implemented on the first day

of the orientation program next year. Overall, the session on diversity was viewed as worthwhile, but many students thought it could have been more interactive. We will keep this in mind during next year's programming.

Numerous feedback sessions for both faculty members and students were conducted as part of the continuous quality improvement process. A learning session with the faculty was conducted during the fall 2005 semester to address students' learning styles from the PILS data, and the input from students on characteristics of a good professor and a good student. This information should be useful to faculty members as they plan their instructional strategies to enhance student learning and collaboration. Student concerns and shared values as obtained from the reflective portfolio were also provided to the faculty. Further follow-up on perceptions of working in an interdisciplinary way is planned. The IDEP scale will be used to track the impact of experiential education and students' experiences in working in an interprofessional manner.

A training session with students and faculty members on diversity awareness during the common hours was implemented during the first semester. A follow-up on the diversity quiz taken during orientation was discussed. Vignettes of the Academy Award-winning movie "Crash" were shown and key questions were posed to promote dialog about issues in diversity students may face in their professional lives.

All of the objectives for the new student orientation helped to develop the various elements of a community of learners. The numerous components of the orientation included the getting to know exercises, mentoring program, social activities, group discussions, several presentations, use of technology and the reflective portfolios. All these activities facilitated the building of community. The preparation of students for reflective learning is critical to our curricular process as the students participate in their first introductory pharmacy practice experiences called *professional role observations* during weeks 9 and 10 of the first semester. During professional role observations, students spend a week in a community pharmacy and a week in a hospital pharmacy site where they must complete a reflective portfolio on their learning experiences.

In addition to the activities during orientation week, the white coat ceremony, conducted 2 weeks after orientation, featured a stirring keynote address about professionalism and taking the oath of the student pharmacist (developed jointly by AACP and APhA-ASP). Dr. Nicholas Popovich (an eminent pharmacy educator) gave this address. Although this ceremony had to be conducted after orientation week due to logistical issues, it allowed students to reflect on the culture of the pharmacy profession and probably helped in building a community of learners.

Based on the perceived success of our first new student orientation program, we have planned our second new student orientation, incorporating ideas from the student feedback we received. It is our expectation that this will be a long-standing tradition at the SIUE School of Pharmacy. The transferability of this new student orientation program to other schools is quite feasible. In particular, this programming may be more easily implemented in new schools of pharmacy. The major requirement is having the availability of a week prior to the commencement of the first semester as well as the availability of faculty and staff members. Even if colleges and schools do not have an 18-week semester, it is logistically possible to require new students to convene 1 week prior to the term for this type of programming. As all schools of pharmacy strive to achieve the accreditation standards for pharmacy and desire similar outcomes for their students, the elements of community that are nurtured during a new student orientation program are applicable. The use of technology to support the program is also a doable attribute in contemporary higher education. Even if the model adopted at SIUE is not exactly replicated, the elements of community could be easily duplicated in a new student orientation program at other schools and colleges of pharmacy. The insights that other schools could learn may stimulate others to think creatively about how to nurture communication, cooperation, and collaboration among students and faculty members.

### **Limitations**

The activities included in the new student orientation program were carefully planned to address the objectives of developing a community of learners. It is possible that activities other than those included in the orientation program that are included in student orientation programs at other schools of pharmacy, may be useful in helping to develop a community of learners. A limitation of the assessment of the orientation program is that only cross-sectional assessment of the activities was performed. Qualitative assessments of the activities were performed on the last day of the orientation. It would have been useful to conduct longitudinal assessments using a pre-post test design. For example, assessing professionalism before and after the orientation week, and again at the end of the first semester, other confounding variables notwithstanding, may be useful.

Another limitation is that faculty perceptions about whether objectives of the orientation program were achieved were not assessed. The results obtained from several student assessments, for example the results from the administration of the PILS and characteristics of good and bad professors, were shared and discussed with the



faculty. We plan to formally assess perceptions of faculty involved in the new student orientation program in the future.

## CONCLUSION

At the SIUE School of Pharmacy, a weeklong new student orientation program with the following attributes was created: (1) a curricular approach with highly specific objectives that support the development of responsible partners in the learning process by nurturing communication, cooperation, and collaboration among the students and faculty; (2) modeling the use of a reflective portfolio by engaging students in the process for the orientation program; (3) a variety of programming supporting the elements of a community of learners; (4) involvement of all of the school faculty and a diversity of other people from the University and community to support the program; (5) engaging students in the use of technology to support the activities of the program; and (6) monitoring programming by soliciting feedback from students and faculty members. The pharmacy education literature has not previously described nor evaluated such a program.

The new student orientation program helped to build a foundation for the development of a community of learners. The three C's of community, including communication, cooperation, and collaboration, were nurtured. These characteristics are especially important for working in an interprofessional manner and for empowering the students with the mission and goals of the School of Pharmacy.

Based on the perceived success of our first new student orientation program, we are planning our second new student orientation, incorporating ideas from the student feedback we received from the first event. It is our expectation that this will be a long-standing tradition at the SIUE School of Pharmacy.

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Appendix 1. SIUE School of Pharmacy New Student Orientation Schedule

**SIUE School of Pharmacy  
New Student Orientation Schedule**

**Day One**

- Registration and distribution of name tags
- Welcome
- Distribution of computers and overview of academic computing regulations
- Getting to know each other (Human Bingo)
- Curriculum and educational outcomes
- Student-faculty luncheon
- History of pharmacy presentation
- Professionalism and team assignment on professional pharmacy organizations
- Pharmacists' Inventory of Learning Styles (PILS)

**Day Two**

- Experiential Education
- Pharmacy practitioner presentations:
  - Long-term care
  - Chain pharmacy
  - Hospital/clinical
  - Industry
- Team assignment presentations of professional organizations
- Sponsored luncheon
- SIUE Student Affairs presentation
- Mentoring presentation and introduction of faculty mentors
- Ice cream social with mentors

**Day Three**

- Use of technology to support learning presentation
- Interdisciplinary Education Perception Scale
- Bursar and financial aid presentation
- Diversity awareness presentation and sponsored luncheon
- Assessment, instructional strategies, and constructive feedback session

**Day Four**

- Portfolios presentation
- Completion of reflective portfolio assignment
- School of Pharmacy and library tour
- Evening sponsored picnic

**Day Five**

- White coat distribution\*
- Portfolio wrap-up
- Evaluations
- Information session on student life at SIUE
- Campus tours/textbooks/ID cards

\*Note: The actual White Coat Ceremony was conducted 2 weeks after the NSO week.

Appendix 2. Questions for the Student Reflective Portfolio

**WHAT?**

**Day one**

1. What did you find intriguing about the history of pharmacy from Dr. Worthen?
2. What did you learn was the difference between an occupation and a profession as presented by Dr. Gupchup?

**Day two**

1. What do you hope to learn in your Professional Role Observation (PRO) experience?
2. What did you learn that was unique in terms of pharmacy practice roles?
3. What was one thing you learned about your faculty mentor?

Note: PROs (professional role observations) are the first semester Early Pharmacy Practice Experiences at the SIUE School of Pharmacy.

**Day three**

1. How will technology support your learning?
2. Define diversity as presented by Professor Wilson. Did your perception of diversity change? Explain how.
3. What is the purpose of providing constructive feedback?

**Day four**

1. How can a reflective portfolio be useful to you in your learning?

**SO WHAT?**

1. What are you excited about as you begin your coursework in the School of Pharmacy?
2. What are your concerns as you begin your coursework in the School of Pharmacy?
3. How are you similar and how are you different from your classmates?
4. Were your preconceptions about the School of Pharmacy confirmed? If so, how?
5. What values are important to you that you feel are shared by members of the School of Pharmacy?

**NOW WHAT?**

1. What changes, if any, do you think you will have to make in order to succeed in the School of Pharmacy?
2. Did the NSO week have an impact on your perception of your role as a member of the community of learners of the School of Pharmacy? Please explain.