Deliberate Integration of Student Leadership Development in Doctor of Pharmacy Programs

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ABSTRACT

The CAPE 2013 Outcomes have answered the call for increased student leadership development (SLD) by identifying leadership as a desired outcome. To meet this outcome and other related outcomes, colleges/schools of pharmacy are advised to first identify a set of SLD competencies aligned with their institution’s mission and goals and then organize these competencies into a SLD framework/model. Student leadership development should be integrated vertically and horizontally within the curriculum in a deliberate and longitudinal manner which includes all student pharmacists, begins at the point of admission, and extends beyond extracurricular activities. The college/school's assessment plan should be aligned with the identified SLD competencies such that student learning related to leadership is assessed. To accomplish these recommendations, an atmosphere of support for SLD should be cultivated within the college/school, including administrative support for leadership instructors and support among the faculty for integrating SLD into the curriculum.
CAPE’S CALL TO ACTION FOR LEADERSHIP

Leadership development has been identified as a desired outcome of pharmacy curricula in the 2013 Center for the Advancement of Pharmacy Education (CAPE) educational outcomes. This recent inclusion comes as no surprise as numerous stakeholders in pharmacy education and the pharmacy profession have made similar calls for leadership development. Since leadership has a variety of definitions depending on the context, it is important to first define it. For the purposes of this paper, leadership is defined as “the process of influencing an organized group toward achieving a shared goal.” Student Leadership Development (SLD) seeks to implement that process and teach students those related skills and attributes as they develop as professionals. Of note, this paper uses a broad interpretation of leadership, including leadership from someone with a title and/or authority (i.e. positional leadership), as well as leadership that may emerge from a team as an individual guides and influences within that work group (i.e. non-positional leadership).

In addition to the CAPE Outcomes, the importance of integrating leadership development into pharmacy curricula is noted in several different areas within the Accreditation Council for Pharmacy Education (ACPE) Standards 2007 Version 2.0. Beginning as early as the admissions process, Schools and Colleges of Pharmacy are to develop admissions criteria, policies and procedures that identify scholastic accomplishments and other desirable qualities, including leadership (Guideline 17.3). Colleges or schools are further advised to establish a student government, as well as suitable committees, in order to develop student leadership, among other abilities (Guideline 22.1). Further requirements include having faculty, administrators, preceptors and staff that are committed to fostering leadership in students (Standard 23). Additionally, the college/school must have or provide support for programs and activities that provide faculty and preceptors strategies to develop leadership in students throughout the curriculum (Guideline 26.1). Lastly, Appendix B explicitly identifies the curricular areas of practice management, social and behavioral aspects of practice, and medication safety as potential placement opportunities for leadership within the core curriculum.
Prior to the recent release of the CAPE 2013 Outcomes, leadership development was primarily addressed through co-curricular and extra-curricular opportunities, mainly student governments and professional organizations. This may have inadvertently conveyed the message that leadership can only be demonstrated by the select few students who are able to obtain a formal position. One of the major changes that CAPE 2013 introduces is the explicit integration of leadership into the curricular outcomes under Domain 4 (Personal and Professional Development). Outcome 4.2 sets the expectation that all graduates of Doctor of Pharmacy (PharmD) curricula “demonstrate responsibility for creating and achieving shared goals, regardless of position”,¹ which extends the scope beyond only those students in elected or appointed roles. In addition to identifying Leadership as Outcome 4.2, several other outcomes are closely related to leadership (see Table 1) and success in CAPE-identified outcomes/roles may depend on development of these leadership skills. The Leadership outcome is positioned with the related outcomes of self-awareness, innovation and entrepreneurship, and professionalism within what is referred to as the “affective domain” (Domain 4).

Whereas faculty are generally familiar with the cognitive domain of Bloom’s Taxonomy of Learning (developing knowledge and intellectual skills), little attention has been directed toward Bloom’s other two domains, the affective and psychomotor.⁷,⁸ Domain 4 within CAPE 2013 expands the Academy’s focus to include the affective domain. Like the cognitive domain, the affective domain takes a stepwise approach to learning on a continuum from awareness (lowest level), to placing worth or value on a particular philosophy/behavior, and ultimately having a value system that directs one’s behavior that is consistent, predictable and characteristic of the learner (highest level). Outcomes related to the affective domain have been added to CAPE in recognition of the significance of professional skills and personal attributes to the practice of pharmacy, and to bridge foundational scientific knowledge with essential skills and approaches to practice and patient care.¹

Based on the recommendations of the CAPE 2013 panel, SLD will require a more deliberate and integrated role within the curriculum. The aim of this paper is to outline considerations for curriculum committees, administrators, faculty and instructors, in advancing SLD in Doctor of Pharmacy curricula. Specifically, this paper will provide
pharmacy educators with assistance in: identifying an institution-specific leadership direction, selecting SLD frameworks or models consistent with a program’s unique assets, defining SLD competencies, interweaving SLD from admissions through graduation, creating a deliberate plan for SLD integration in the curriculum, identifying teaching/learning methods for SLD, assessing SLD and developing the requisite supportive environment for SLD. Throughout the paper, examples are provided. However, these examples are not meant to be exhaustive or exclusive. Instead, examples are provided to aid colleges/schools in beginning the work of identifying competencies, models and pedagogical approaches to be refined for their SLD program. Examining and customizing the numerous options will require the thoughtful determination and creativity of pharmacy educators at each institution. Appendix 1 provides an overview of considerations for pharmacy educators as SLD programs are designed.

INITIATING STUDENT LEADERSHIP DEVELOPMENT

Drawing from several sources, SLD may be defined as an intentional, individualized effort to grow the ability of all student pharmacists to lead positive change with or without a title, which is delivered in a manner that encourages students’ active engagement in leadership. Ideally, SLD will involve all student pharmacists, have a longitudinal and experiential nature, achieve programmatic outcomes that prepare student pharmacists with the leadership skills necessary for entry-level practice, and instill a purpose to engage in lifelong reflection and development.

Each college and school of pharmacy is distinctive, as evidenced by differences within vision, mission and goal statements of pharmacy programs. The nature and scope of SLD lends itself to highlighting these distinctions. Student Leadership Development initiatives may be nuanced to help meet educational outcomes, which are specific to a pharmacy program. For example, a pharmacy program may wish to emphasize expanding rural services or legislative advocacy, if these are strong elements of their mission statement, or a faith-based institution may wish to tailor SLD education to meet outcomes specific to their respective faith. Rather than propose a specific SLD approach for all pharmacy schools, it is recommended that each pharmacy program develop an SLD program that will best help meet the needs of the particular college/school’s mission and goals. This paper will provide conceptual guidance for this process and examples that may serve as a starting point.
While each program’s SLD curriculum is expected to vary for the above reasons, there are elements of SLD that are essential for all pharmacy Leadership Development (LD) curricula. It is highly encouraged for all individuals involved in pharmacy leadership education to review the 12 Guiding Principles for SLD. It is particularly important for these Guiding Principles (Table 2) to be utilized at the beginning stages of SLD curricula development and referred to throughout the process. For example, the Guiding Principles “leadership can be learned” and “leadership is important for all student pharmacists to develop” are overarching philosophies best applied at the beginning steps when building a SLD curriculum. Applications of these Guiding Principles will be pointed out throughout this paper.

**Student Leadership Development Competencies**

Creation of a SLD program requires the definition of the desired competencies or outcomes. Once created, these competencies should then guide all subsequent decisions regarding the content, delivery and assessment of leadership education. Several examples of SLD competencies are provided in the CAPE 2013 Outcomes; however, these examples do not comprise a comprehensive set of SLD competencies, and schools/colleges of pharmacy will need to refine and expand upon these examples to adequately describe the leadership expectations of their graduates. A recommended and overarching consideration when creating competencies is that SLD must include **doing**, in addition to learning leadership facts and concepts. A further recommendation is inclusion of external stakeholders in the process of setting SLD competencies, particularly those most likely to be impacted by the LD skills of a college/school’s graduates (e.g. pharmacy managers, residency directors).

Many examples of LD competencies are available and the review of several examples prior to crafting institution-specific outcomes is highly encouraged, paying particular attention to competencies which represent the: 1) Guiding Principles essential to all pharmacy LD and 2) institution-specific goals referred to earlier. Table 3 is a list of sources providing leadership competency and outcome examples. These examples are only a small sampling of the wide variety of SLD competencies and exploring the available literature is encouraged. Ideally, a complete set of SLD competencies will encompass the 12 Guiding Principles and include:
• self-focused leadership competencies (e.g. self-awareness) and other-focused leadership competencies (e.g., leading change, advocacy);

• knowledge-based competencies (e.g. describing effective leadership strategies) and behavior-based competencies (e.g., demonstration of team leadership); and

• the cognitive domain (e.g. selecting appropriate strategies for facilitating change) and the affective domain (e.g. development of emotional intelligence).

Student Leadership Development Framework

The development of competencies can be informed by investigation, discussion and development of a leadership framework, which reflects the mission of the institution while retaining the Guiding Principles. A SLD model will guide the design and placement of leadership content and experiences in a manner that ensures student mastery of the competencies. In addition, the model may serve as a tool to communicate the SLD curricula, including its fit with the institutional mission and overall curriculum, in a concise manner to all stakeholders. Often a SLD model will organize the leadership learning competencies by theme. In some cases, an SLD framework will include information about when in the curriculum a certain set of competencies will be mastered. Ideally, a SLD framework will include elements of both self-focused and other-focused LD.

The 2008-09 Argus Commission report on building a sustainable system of LD in pharmacy9 presented the Kouzes and Posner framework of five practices for exemplary leaders (i.e. Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart)11,12 as a model for SLD. Readers are encouraged to review this report for a discussion of how each of the five practices fits into the context of pharmacy education and practice. This same report also reviewed and updated the Three Tiers of Leadership Development Activities, a SLD model advocating for the design of activities for all students, the majority of students, and a smaller subset of students, originally published in the 1999-2000 AACP Professional Affairs Committee report.13 The National Public Health Leadership Institute has developed a New Partners, New Challenges LD program with a framework comprised of two central areas, Leading People and Leading System Change.14 In Heroic Leadership,
Lowney proposed a LD model derived from Jesuit best practices comprised of four pillars (i.e. self-awareness, love, ingenuity, and heroism), elements of which may especially appeal to faith-based institutions.

In addition to providing guidance, LD models used in undergraduate education may be helpful for understanding the LD training which some matriculating students may have acquired prior to pharmacy school. One example is the Social Change Model of Leadership Development, which emphasizes three different perspectives (the individual, the group, and the community/society) and includes critical values, such as consciousness of self, collaboration, common purpose, and citizenship. Another example is the Relationship Leadership Model which focuses on relationships being the key to leadership effectiveness through leadership actions that are: inclusive, empowering, purposeful, ethical, and process-oriented. Other models are available and schools are encouraged to consider which model(s) best fit their mission and approach to SLD.

PLANNING FOR STUDENT LEADERSHIP DEVELOPMENT

Once the competencies have been defined and a framework for SLD has been created, a plan for integrating leadership education content and experiences needs to be created. The 2009 Argus Report defined effective SLD as requiring that programs: a) implement leadership considerations upon admission; b) ensure an institutional culture supportive of leadership; c) provide role models including but not limited to alumni, faculty, and preceptors; d) ensure administrative and financial support of student leadership development; e) deliberately thread leadership development longitudinally through the PharmD curriculum as well as through co-curricular courses and activities; and f) extend professional LD on to postgraduate pharmacy education and training opportunities. This section of the paper discusses options for integrating SLD into PharmD programs, using the guidance of the Argus Commission.

Incorporating a Leadership Focus in Recruitment and Admissions

The APhA-ASP Task Force on Pharmacy Student Professionalism (TFOPSP) identified recruitment as an important opportunity to “emphasize the professional characteristics of pharmacy and pharmacists.” Specific leadership competencies to emphasize could include the need and expectation for leadership in pharmacy.
should consider mechanisms for exposing prospective applicants to the pharmacist's leadership role and responsibility at career days, during open house and other events, as well as incorporating such information in promotional literature. In addition, guidance counselors and advisors should be aware of the desire for candidates with leadership experience and/or potential. In the admissions process, specific competencies to emphasize might include: recognizing that leadership comes from those with and without titles, describing the characteristics of effective leaders and demonstrating self-awareness in leadership.

Admissions criteria. Although there was some controversy concerning leadership within admissions criteria, the Argus Commission agreed that “there is a role for placing some level of emphasis on identification of leadership potential as a function of the admissions process.” The TFOPSP agrees that admissions “is a crucial step in the development of professionalism within which leadership is a vital component.” Considerations for evaluation among admission criteria should include: a) prior experience with leadership and advocacy; b) oral and written communication skills; and c) interpersonal skills. These criteria are consistent with CAPE 2013 which similarly suggests that PharmD programs employ an admissions process offering balanced consideration of experiences, attributes, and academic metrics, all of which are to be considered in combination and used to determine how any individual PharmD applicant might contribute value as a student pharmacist and as a future pharmacy practitioner.

Interview and essay requirements. Leadership interests, experiences and capabilities can be explored through existing admissions requirements. The 2009 AACP Curriculum Change Summit paper on pre-professional preparation argues that the required interview should be structured to provide educators the opportunity to determine leadership capabilities, while also allowing for determination of other desirable skills (critical thinking, motivation, interpersonal abilities, knowledge about the pharmacy profession and/or health care, etc.) or attributes (caring, empathy, social responsibility, etc.). Further, the Multiple Mini Interview (MMI) is purported to assess leadership skills and potential through a series of situational interviews focused on qualitative and/or non-cognitive attributes of the candidate. An on-demand written essay during the course of an interview day or a supplemental question on
the admissions application could likewise be structured to allow for assessment of leadership attributes of prospective students.

**Incorporating Student Leadership Development at Orientation**

Another critical element of SLD is the expectation of leadership from the outset of matriculation.\textsuperscript{9,18,21} From the beginning, schools and colleges should inculcate the basic principle that “leadership is a professional obligation,” and to that end orientation should emphasize leadership as essential to the future of the pharmacy profession, essential to developing and implementing new pharmacy services designed to improve patient outcomes, and essential to society.\textsuperscript{21,22} Foundational leadership competencies can be addressed at this preliminary juncture, including basic “leadership knowledge” such as, “What is leadership?”\textsuperscript{2} Specific competencies might include the ability to: a) explain the importance of leadership in pharmacy; b) recognize that leadership comes from those with and without titles; c) distinguish between leadership and management; and d) describe the characteristics, behaviors and practices of effective leaders.\textsuperscript{2}

Leadership has been identified as a component of professionalism.\textsuperscript{18} Therefore, typical orientation activities, such as examination of the Oath of a Pharmacist,\textsuperscript{23} Pharmacist’s Code of Ethics\textsuperscript{24} or Ten Traits of a Professional,\textsuperscript{18} could be expanded to specifically emphasize leadership. In addition, leadership activities may align well with planning for a student’s professional development.

**Incorporating Student Leadership Development in Doctor of Pharmacy Programs**

Leadership development is not defined by, nor will it be successfully cultivated by a single course or elective in leadership. Since SLD involves developing skills and behaviors over time, it can and should occur throughout the curriculum. Indeed, the survey results from forty-six pharmacy programs published by Ross et al. indicate that LD should not be taught nor learned in isolation.\textsuperscript{22}
It is recommended that integration occur both horizontally and vertically, using a variety of required courses and co-curricular and extracurricular experiences. Deliberate effort will be needed to effectively and sustainably integrate leadership in the student pharmacist experience. As institutions creatively “thread” SLD components into curricular, co-curricular, and extra-curricular areas, attention must be paid to ensuring: sufficient SLD support (environment, mentors, advisors, role models); multiple opportunities for students to “lead” and to “practice” leadership skills; and appropriate assessment as to whether or not their programs are achieving their respective targeted SLD competencies.

As consideration is given to where leadership might be developed within pharmacy programs, it’s important to recognize that professionalism, advocacy, management, and leadership are all interconnected, but not entirely inclusive of one another. In fact, leadership, as a topic, is logically connected to various outcomes defined in CAPE 2013, such as: Communication (Communicator), Advocacy (Advocate), Management (Manager), Professionalism (Professional), and Innovation and Entrepreneurship (Innovator) (See Table 1). As colleges/schools solidify an approach to these topics, it is recommended that the unique connection to leadership be explored and that SLD competencies be incorporated. For instance, a course on management could include leadership competency development around organizational culture and change processes, such as creating urgency, building guiding coalitions and formulating a shared vision. An interprofessional course could include competencies related to team leadership, such as building trust, engaging in constructive debate and creating accountability. A drug development sequence could include personal examples from researchers that highlight pursuit of the common good or staying the course in the face of opposition. A professional development series could include activities and assessments related to building self-awareness as a leader, such as emotional intelligence work. Speakers may be able to share examples of leadership. For instance, a presentation by a medicinal chemist might focus on the trial-and-error process and resilience en route to developing a new compound, or a clinical faculty member discusses the process of learning about organizational structure as they navigate there research project, rather than merely presenting their final discoveries and results. Examples of leadership can then be explicitly tied to the leadership concepts learned.
The work of integration is complicated by the need for competency development, not just introduction of leadership-related topics. For instance, demonstrating the ability to lead a team is different than understanding the principles of team functioning. The college/school’s specific competencies will need to guide the amount and type of LD integration within courses. Higher level leadership competencies may require more time and reinforcement within the curriculum and more opportunities to practice.

Interprofessional education (IPE) has become of high importance for PharmD curricula. The addition of SLD into a pharmacy curriculum presents an opportunity for IPE activities. For example, Poirier and Wilhelm identified via a multidisciplinary faculty seminar that leadership and advocacy affords opportunity for IPE. When creating a plan for the implementation of SLD in a pharmacy curriculum it is recommended to look outside of the pharmacy program for IPE teaching and learning opportunities which are a good fit for LD.

Leadership development activities should be direct and deliberate. There is a tendency to expect SLD will occur in an indirect manner as a byproduct of student engagement in certain co-curricular or extra-curricular activities (e.g. student organizations, legislative days). These activities likely contribute to LD in some students. However, the current atmosphere of healthcare reform, and the opportunities this atmosphere offers to the profession of pharmacy, calls for the same intentional and deliberate approach to SLD for all students as with other topics, such as the pharmaceutical and clinical sciences. In addition, within these activities, explicit attention to leadership skills is needed. For example, a legislative day, typically involving a visit to the state capitol to meet briefly with a lawmaker, is a common activity in pharmacy programs. The visit often carries expectations of leadership knowledge or skill development that may be acquired indirectly. This might occur, for instance, if the lawmaker shares their personal leadership journey or a story of navigating a leadership challenge. The LD from this experience can be made more direct and deliberate by developing specific leadership related objectives, assigning and assessing pre- and post-legislative day activities and connecting the event with a required course. For instance, if addressing apprehension about legislative advocacy is a goal, group activities addressing effective methods of lobbying for legislative change might be followed by personal reflections on advocacy skill development.
Introductory Pharmacy Practice Experiences (IPPEs) and Advanced Pharmacy Practice Experiences (APPEs) constitute a major portion of a pharmacy student's opportunity to observe, practice and develop leadership skills in the real world context of pharmacists, patients, health care professionals and practice challenges. As such, SLD should be longitudinally threaded throughout IPPE and APPE experiences. Again, a college/school’s SLD competencies will direct the types of activities. However, it is recommended that competency development optimize access to real-world challenges. For instance, a community management APPE may involve students in developing a new pharmacy service, allowing them to hone skills in visioning and developing buy-in. A research APPE might include discussion of the strategies to secure support for a new line of inquiry, allowing students to see leadership attributes and skills, such as purpose-driven resilience and response to criticism. A patient care APPE might involve participation on a clinic team working to reduce population lipid levels, allowing students to see the process of gathering collective wisdom to generate new approaches. Colleges/schools are encouraged to work with preceptors in defining leadership related competencies for IPPEs and APPEs and to develop and share methods for students to exercise leadership skills in practice settings.

**Enhancing Extracurricular Student Leadership Development**

Effective SLD requires colleges/schools to consider a tiered model that would reach all students. In order to accomplish that end goal, institutions must thread SLD, not only through curriculum and co-curriculum, but also to extracurricular activities.

A 2009 AACP Council of Faculties Task Force called for SLD and for institutions to: a) recognize, encourage and support the vital role of student organizations in this regard; b) work together with student organizations to provide leadership and advocacy development opportunities; and c) collaborate on development of specific activities to enhance SLD. Colleges/schools can partner with student organizations and other stakeholders to facilitate and recognize student participation in extra-curricular activities that advance SLD. To emphasize the importance of experience with the work of leadership, one school has required leadership service of all students (e.g. professional
organization leadership, coordinating a new initiative, leading policy development, leading a research protocol) and reporting on that experience.  

To further enhance extra-curricular options, colleges/schools should consider the role of student leadership retreats, institutes, longitudinal development programming and joint leadership conferences with state pharmacy associations.

**Post-Graduate Leadership Development**

During the Doctor of Pharmacy program, students should be encouraged to consider leadership development following graduation. In addition, students should be informed about the array of post-graduate LD opportunities. For instance, pharmacy residencies promote competencies that expressly include “exercising leadership and practice management skills.” *(ASHP Residency Outcome R3)* A number of programs have reported on developing leadership skills in residents. As colleges/schools support local residencies, there may also be opportunities for joint LD events with residents and students or sharing of LD resources between residency and Doctor of Pharmacy programs.

**TEACHING AND LEARNING METHODS IN STUDENT LEADERSHIP DEVELOPMENT**

Leadership development requires frequent reinforcement from the initial contact a student makes with an institution, through becoming an alumnus and assuming roles as productive leaders within the communities. To this end, having SLD opportunities that are intentionally interwoven across different programmatic stages, such as the admissions process, orientation and any didactic and experiential training is preferable to a piecemeal approach. Additionally, a variety of methods beyond lecture can be used to ensure that students receive practice in skill sets germane to SLD. Students will learn about basic definitions through reading and lectures, but work in discussion of cases, reflecting on authentic situations, practicing in experiential environments, and participating in debates with other students, faculty members, and leaders in the community will help students put the definitions learned into action.
Student Leadership Development in Other Disciplines

Pharmacy is not alone in its desire to support leadership development in students. Within the undergraduate educational system, the concepts of leadership are taught to students in very diverse fields of study, demonstrating that no one institution, field of study, or profession has exclusive claim to the development of future leaders.\textsuperscript{37,38} As colleges/schools seek to evolve SLD within pharmacy programs, much can be learned from undergraduate education. Specifically, Maellaro and Olsen write of the importance of self-awareness and the journey to developing deeper knowledge of self through reflection.\textsuperscript{37,38} Roberts uses questions that ask about students’ strengths and weaknesses within assignments, requiring students to look back at prior work and to connect class work with their lives outside of class.\textsuperscript{39} Others advocate for the importance of structured journaling to gain insight into self within a semester-long term,\textsuperscript{37} an academic year,\textsuperscript{38} or as part of a longitudinal and multi-year capstone course asking students to consider their career plans after graduation while engaging in related experiential learning opportunities.\textsuperscript{40} Additionally, several authors have advocated for the development of self-awareness in SLD through reflection and self-exploration of one’s strengths.\textsuperscript{39,41}

Further, Smith and Roebuck add that connecting students to current and existing leaders is of utmost importance to gain awareness of the different pathways moving toward leadership.\textsuperscript{42} Leadership concepts are taught using various active learning strategies, such as: assignments in which students: interview a leader,\textsuperscript{42} interpret leadership themes within pop music genres,\textsuperscript{43} and identify with a hero, real or fictional, based on self-perceptions of their strengths,\textsuperscript{41} among others. Smith and Roebuck require their students to not only arrange interviews with leaders in their community, but also take inventory of their own behaviors throughout the day in order to reflect on the experience in a structured manner.\textsuperscript{42} Although often developed for undergraduate students, resources available through the Association of Leadership Educators,\textsuperscript{44} the National Clearinghouse for Leadership Programs\textsuperscript{45} and the Journal of Leadership Education\textsuperscript{46} may be useful to colleges/schools as they consider teaching and learning methods.

Fostering Self-Directed Leadership Development
To help students demonstrate a commitment to leadership development, Boyd and Williams describe an approach to individualized, self-directed learning.47 Students develop a proposal for one selected topic, identify resources they need to carry out their learning and are required to document their experiences and their growth, receiving feedback to ensure feasibility and authenticity to leadership development.47 A similar process has been described in a pharmacy leadership course, using the Continuing Professional Development process.48 In order to gain experience with customizing LD to their own needs, colleges/schools are urged to consider methods to assist students in self-assessment, planning, action and evaluation related to their own personal leadership development.

**Employing Student Leadership Experiences**

Case-in-point (CIP) teaching, developed by Heifetz, Grashow and Linksy in collaboration with Harvard Kennedy School of Government, is discussed in Daloz-Parks’s *Leadership Can Be Taught*.49,50 Case-in-point is an immersive, reflective teaching method that uses discussion of student leadership experiences, actions and behaviors to illuminate leadership theory and practices. The instructor is a facilitator that probes student intentions, names and observes patterns, and confronts factions or groups as they discuss the case. Through CIP, students are able to reflect on, and explore, their current ideas related to leadership, engage in self- and peer-dialogue about contrasting and conflicting views, and explore new levels of understanding and cognitive growth as they start to think differently than at the start. The process is transformative and helps students to learn the skill of “moving to the balcony” to look for bigger picture patterns and interactions, which will guide them to more effective strategies for confronting challenges. Through guided large group and small group discussion, coupled with reflection on personal experience, students learn about authority, power, controlling pressure, intervening productively, giving the work back and a host of other strategies related to adaptive leadership.49,50 The value of CIP, as a method of “learning by doing”, should be explored further in pharmacy education.

**ASSESSMENT CONSIDERATIONS**

Including Student Leadership Development in the Student Learning Assessment Plan
As colleges and schools examine the CAPE 2013 Outcomes and seek to deepen their commitments to SLD, the college/school’s assessment plan will need to evolve and hone its focus on student learning related to leadership. Leadership assessments will come from many areas of the curriculum. In this plan, leadership competency attainment will be the major focus. However, leadership growth over time is also important.

As in any effective assessment plan, the assessments selected should be well aligned with the competencies being developed. For instance, a foundational knowledge oriented competency, such as “distinguish between leadership and management,” might best be assessed by an assignment where the student analyzes their participation in a current project, isolating and describing the various leadership and management functions. This assignment might be embedded in a course and assessed by a rubric, with a defined score designating the desired level of competency.

For other competencies, such as “lead members of a team”, self-assessment may need to be coupled with observer assessments (e.g. peers, instructors, supervisors, preceptors). In addition, assessment may need to occur in situations with increasing complexity (e.g. short-term task, long-term change initiative). Context and progression are also important to consider. For instance, it may be helpful to move from paper-based scenarios, to personal analysis of past instances with team leadership, to observed and authentic cases in early experiential settings, to focused skill assessments while working in a current team.

Ultimately, SLD involves more than studying leadership and includes some level of assuming the responsibility of leadership. The scope and duration of student leadership roles may vary greatly. However, colleges/schools must endeavor to ensure that students “do” leadership. As students practice leadership skills, the competency being developed must be clear and learning must be assessed. For instance, if students are to gain experience in facilitating change, student learning might be assessed, to some degree, by participation in a new initiative that is then documented in a log or journal (e.g. list of efforts to implement Kotter’s Eight Steps). Alternately, these experiences may be documented through reports of the activities or projects undertaken (e.g. executive summary of
the process of implementing a new health fair). These reports may be coupled with reflections that require students to move beyond describing their contributions and include critical analysis and/or evidence of their influence. Portfolios may be used to collect various logs/journals, reports, reflections or critical analyses that demonstrate competency attainment. Portfolios might also include a student’s leadership development plan and updates on accomplishments related to that plan. As these materials are reviewed, colleges/schools are encouraged to use information on student learning to improve the SLD process.

Student learning assessment should not be confused with program evaluation. Student satisfaction, effectiveness of teaching, and program mission/goal achievement will likely also require examination as student leadership development programs evolve. However, these program evaluation efforts are not a substitute for measures of student ability.

**Special Challenges in Assessment of Student Leadership Development**

**Facilitating self-awareness.** To facilitate the self-awareness that is an integral part of leadership development, colleges/schools may wish to have students complete one or more inventories or instruments that provide insight into personality, communication styles, emotional intelligence, talents or other personal attributes. The Clifton Strengthsfinder is one tool that has been specifically used in pharmacy education to facilitate awareness of talents and their use in leadership roles. In making selections, colleges/schools should consider the resources required to administer the instrument, including assisting students in understanding and using the results. While taking the instrument can provide interesting “aha” moments for students, workshops or debriefing sessions can add to the understanding of the concepts assessed and enhance the utility of the assessment for the participants. In addition, deliberate use of the findings, repeated reference to the concepts assessed in various points of the curriculum and personalized development plans are encouraged to maximize the utility of these types of tools. Given the commitment required to optimize the use of these tools, colleges/schools are encouraged to select instruments carefully. Consideration might be given to the instruments used with pharmacists locally, providing students, faculty and preceptors with common terminology and vernacular. In addition, a sufficient cohort of faculty should be
trained/experienced in their use. Furthermore, colleges/schools should consider the value in having all faculty take the same instruments as the students, further increasing the opportunities for conversation and support.

**Using available instruments.** Colleges/schools may wish to utilize commercially available instruments or published instruments that assess specific leadership abilities or behaviors. Selected instruments should be aligned with the leadership model/framework adopted by the college/school. For instance, the 2009 Argus Commission advocated for the value of the 5 Practices of Exemplary Leaders with student pharmacists. If this model were adopted by a pharmacy school, there is a commercially available self and observer assessment of the behaviors associated with these Five Practices, The Student Leadership Practices Inventory. If a school’s program aligns more with transformational leadership, servant leadership, authentic leadership, or any number of leadership frameworks/models, there are often associated instruments that attempt to measure the most prominent aspects of those models. Colleges/schools are encouraged to identify a leadership model/framework and then examine instruments associated with that framework/model.

From a developmental perspective, there may be a particular value to instruments that focus on the assessment of behaviors versus the assessment of attitudes. Instruments with a self and an observer component can also be particularly helpful. Work is needed to examine the value of available leadership development instruments, when used with pharmacy students. For instance, some instruments may or may not be designed or validated for pre-post use to assess growth. As colleges/schools gain experience with these instruments, sharing the results and an evaluation of usefulness through scholarly dissemination is encouraged.

**New Approaches to Student Leadership Development Assessment**

Due to its longitudinal and developmental nature, leadership will likely require unique and innovative approaches to assessment. There are several high promise techniques that could be considered, depending on the specific competencies being emphasized by a college/school. As an example, there may be a role for assessment of self-assessments. For instance, students could be asked to document and examine the significant milestones in their leadership history. These narratives could then be assessed by instructors using a rubric specifically developed to
identify phases of Leadership Identity Development\textsuperscript{59,60} or other relevant indicators of growth and/or development. This assignment and its feedback could provide input to the student. Aggregated across the class, this process could provide the college/school with insight into the cohort of students, which could aid instruction and continuous quality improvement of the SLD program.

In addition, assessments of sequences of assignments may have a role in understanding a student’s development over time. For instance, students might complete documentation/reflection related to a leadership competency (e.g. motivating and encouraging others) over a sustained period of time. Perhaps this competency is addressed through a series of assignments embedded in a professional development sequence and several introductory practice experiences. These assignments may occur over several years. Then, students might review the assignments and perform an analysis of their own development. This collection of assignments and the critical analysis can then be assessed, perhaps by a panel of faculty, for both growth and indicators of competency attainment.

LD could also benefit from assessments and evaluations completed post-graduation. This may mean revising graduating student and alumni surveys to more carefully assess leadership competencies, such as success in motivating and inspiring others toward an enhanced pharmacy role. In addition, more qualitative forms of assessment and evaluation may be useful, such as interviews on use of leadership knowledge/skills or stories describing leadership successes. In addition to input from graduates, it may be helpful to include employers, residency directors and colleagues.

**CREATING THE ENVIRONMENT**

In order to achieve sustainable SLD in pharmacy education, schools must create an environment that will support leadership development for all students. Based on recent publications in pharmacy education, there are a number of factors that have been purported as important for establishing a culture of leadership development. This section of the paper will consolidate and explain the reported environmental needs that support SLD success.
The Need for Role Models

The 2008 – 2009 Argus Commission further noted the importance of faculty and alumni serving as leadership role models both formally, such as advising student government associations, as well as informally through daily acts of leading by example.\textsuperscript{9} The authors expand the call for student mentorship to include pharmacy administrators and staff by stating that “a commitment to leadership must be modeled by all of those with whom students are in contact.” The 12 Guiding Principles for SLD (Table 2) also include the need for administrators, faculty and staff to model and support the core tenants of leadership.\textsuperscript{3} In addition, the 2009 Council of Faculties (COF) Task Force on Preparation of Pharmacy Faculty and Students to be Citizen Leadership and Pharmacy Advocates mentions the importance of alumni and faculty as leadership role models, including holding offices in professional organizations.\textsuperscript{22} Considering Kouzes and Posner’s five leadership practices, faculty are important in “Modelling the Way” and “Encouraging the Heart” (i.e. modelling the importance of recognition and celebration of the success of others, including recognition of students for leadership accomplishments).\textsuperscript{11,12} As colleges/schools consider the development of their faculty and alumni, opportunities for support and expansion of leadership role models should be explored.

The Need for Visible and Intentional Institutional Commitment

In addition to being role models, faculty and administrators should weave SLD into the mission and goals of the school.\textsuperscript{9,22} The 2009 Argus Commission stressed that support for SLD must include administrators responsible for resource management to ensure financial support and performance measurement. Indeed, an SLD-supportive environment will require adequate faculty, staff and other instructional resources. If budgeting is linked to strategic planning, this goal can only be achieved if SLD is included in the school strategic plan.\textsuperscript{3} In addition, incorporating LD goals into the college/school strategic plan can draw attention to the shared message of college faculty and administration concerning the relevance of leadership training and encourage student pharmacists to perceive leadership as being attractive and achievable.\textsuperscript{2} If leadership development is absent from the vision, mission and goals, a school would likely struggle to achieve many of the Argus Commission’s requirements for a sustainable system of leadership development, including the development of new and support of existing postgraduate programs.
The Need for Faculty and Administrative Support of Student Leadership Development

The 2013 COF Task Force wrote of the importance of the “Creation of a culture of expectation for involvement as leaders” and reported that survey respondents noted the importance of developing a culture that expects students to become leaders upon entry into the program. In addition to acting as role models, faculty and administrators can contribute to an environment that is propitious to the development of student leadership in a number of ways; for example, faculty and administrators should recognize, encourage and support the role student organizations play in LD and work with student organizations to provide students leadership opportunities. Student organizations could be a powerful force in attempting to dispel leadership myths and resolve confusion related to leadership.

The 2008-09 Argus Commission commented on issues such as a failure to recognize that the pathway to patient-centered care is not already established, the thought that leadership is synonymous with management, and that leadership opportunities will distract from pharmacy studies and part-time work. As an example, faculty could work with student organizations to provide criteria for leadership that supports non-positional and positional leadership and clearly distinguish leadership functions from management functions. These could be used in organization admissions (e.g. Phi Lambda Sigma) or recognition (i.e. award) processes. Kotter’s descriptions of leadership and management could be helpful in this regard.

The Need to Support Faculty in Leadership Development

In order to achieve the goals listed above, there is a need for proper faculty support and resources. The 2008-09 Argus Commission comments on faculty workload, stating that “It is essential that faculty position descriptions and evaluation systems place appropriate emphasis on faculty leadership development activities.” As with students, colleges/schools should recognize positional and non-positional faculty leadership roles. Support should be provided for development of leadership programs, advising student organizations, and student leadership mentoring. To encourage faculty participation, these roles should be listed as a faculty service responsibility. In addition, this work should be included in criteria for promotion and tenure and considered as part of the annual evaluation and merit increase processes.
The 2008-09 Argus Commission described the importance of supporting faculty continuous professional leadership development (CPLD) in policy statement number 3 by stating that “Expectations for faculty to provide leadership in pharmacy and health care must be supported with appropriate faculty development, mentoring and reward systems.”

More specifically, Kouzes and Posner mention the need to support identification of and reflection on leadership approaches. The Myers-Briggs Type Indicator and the Clifton Strengthsfinder are both examples of resources that help build awareness of personal assets that can be used in leadership.

Providing monetary support and opportunities for faculty to participate in local, state and national CPLD opportunities is also needed. The AACP’s Academic Leadership Fellows Program (ALFP) aims to address the needs of academic pharmacy and cultivate promising pharmacy faculty for roles as future leaders in academic pharmacy and higher education. The American College of Clinical Pharmacy’s (ACCP) Leadership and Management Certificate Program (LMCP) is aimed at “developing leadership and management abilities” and “designed for those who are currently in leadership or management positions or who aspire to pursue leadership positions in the future.” These programs may be useful in developing faculty and preceptors to become stronger instructors and coaches in SLD programming. In addition, there may be opportunity to conserve human and financial resources by establishing partnerships and collaborations for faculty LD with other pharmacy schools and health professions.

A number of the 12 Guiding Principles for LD will likewise require that faculty have adequate resources at their disposal; for example, if pharmacy education is to embrace as a Guiding Principle that “leadership is important for all student pharmacists to develop”, then sufficient faculty and staff need to be hired to support this work. Utilizing “Student leadership development must focus on student self-development” as our compass may also require the purchase of additional instructional resources; for example, resources to support student identification of individual leadership strengths, talents and emotional intelligence.

SUMMARY
In this paper, leadership is defined broadly to include all forms of leadership. While some leaders are traditionally those with a formal title or charge as “managers”, or “supervisors”, others without these titles still find ways to influence, motivate and lead others towards excellence, sometimes even from a peer-level. As pharmacy educators, our continued commitment to leadership development will aid student pharmacists in evolving and shaping the pharmacy profession long after graduation. With the changes that are occurring in healthcare and healthcare education, there is a great need for students to learn about leadership related to working through others, enacting change, and being the drivers of their own professional and personal journey.

Achieving the Leadership Outcome in the CAPE 2013 Outcomes will require intentional planning and dedicated implementation involving curriculum committees, administrators, faculty and leadership instructors. SLD is not simply introducing leadership topics into a course. SLD is an intentional, individualized effort to grow the ability of student pharmacists to lead positive change with or without a title, which is delivered in a manner that encourages students’ active engagement in leadership. A strong SLD program will: involve all student pharmacists, focus on preparing students with the leadership skills necessary for entry-level practice, and instill a purpose to engage in lifelong leadership development. Effective SLD will involve exploring the interfaces between leadership and other CAPE 2013 outcomes, such as Communication (Communicator), Advocacy (Advocate), Management (Manager), Professionalism (Professional), and Innovation and Entrepreneurship.

In creating SLD programs, colleges/schools should tailor their approach to their needs and assets. Colleges/schools can begin by identifying and refining a leadership model/framework to help communicate and support their SLD efforts. The leadership framework/model should be well aligned with a college/school’s mission, vision, and goals. In addition, SLD initiatives should achieve programmatic outcomes that are included in a college/school’s strategic plan. To guide the teaching, learning and assessment efforts, SLD competences are also required.

Colleges/schools are encouraged to explore options for incorporating leadership in recruitment, admissions and orientation. In addition, instead of relying on a concentrated experience, SLD should be threaded longitudinally
through didactic and experiential portions of the curriculum. The college/school’s specific SLD competencies will need to guide the amount and type of LD integration within the curriculum. Higher level competencies will require more time and reinforcement. College/schools are urged to consider methods to assist students in self-assessment, planning, action and evaluation related to their own personal leadership development.

Colleges/schools should also work to develop co-curricular and extra-curricular opportunities that support SLD, recognizing the vital role of student organizations. In particular, students need opportunities to “lead” and to “practice” leadership skills.

As college/schools seek to advance SLD within their programs, much can be learned from other disciplines. Consultation with resources outside of pharmacy programs may provide a different perspective on teaching approaches, engagement strategies and documentation of students’ growth. To ensure success, colleges/schools must integrate leadership assessment with the college/school student learning assessment plan. In addition, to carry out SLD efforts, a supportive environment is needed.

In developing approaches to SLD, there are many available resources to aid colleges/schools. This paper has provided resources for consideration in stating desired competencies, identifying areas for leadership development and selecting strategies for instruction and assessment. As the academy proceeds with SLD, interprofessional education, collaboration with other colleges/schools and dissemination of scholarship related to SLD pedagogy, assessment and program effectiveness are encouraged. Through diligence, deliberation and creativity, SLD programs can be refined and expanded to more fully prepare student pharmacists to impact the practice challenges that await.

REFERENCES


33. American Society of Health System Pharmacists. Required and Elective Educational Outcomes, Goals, Objectives and Instructional Objectives for Postgraduate Year One (PGY1) Pharmacy Residency Programs.


<table>
<thead>
<tr>
<th>CAPE Outcome</th>
<th>Connection to Leadership</th>
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<tbody>
<tr>
<td>Foundational Knowledge</td>
<td>PharmD graduates should be able to explain the importance of leadership in pharmacy; recognize that leadership comes from those with and without titles; describe the characteristics, behaviors, and practices of effective leaders; distinguish between leadership and management; and be familiar with the leadership model/framework being used by the school.</td>
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<td>Medication Use Systems</td>
<td>In order to optimally evolve and manage medication use systems, PharmD graduates should be able to develop knowledge of an organizational culture; develop a shared vision for an initiative or project and outline change processes.</td>
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<tr>
<td>Patient Advocacy</td>
<td>PharmD graduates should be able to empower patients to take responsibility for their overall health outcomes; advocate for a health system that represents patient interests; and shift the paradigm of health delivery to a patient-centered, team-based approach.</td>
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<tr>
<td>Interprofessional Collaboration</td>
<td>PharmD graduates should be able to lead members of a team; apply leadership practices that support collaborative practice and team effectiveness; collaborate with others.</td>
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<tr>
<td>Communication</td>
<td>PharmD graduates should be able to develop skills of persuasion and influence; communicate a shared vision; and communicate clearly and concisely.</td>
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<tr>
<td>Self-awareness</td>
<td>PharmD graduates should be able to demonstrate self-awareness in leadership.</td>
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<tr>
<td>Innovation and Entrepreneurship</td>
<td>PharmD graduates should be able to embrace and advocate changes that improve patient care; develop new and innovative services and/or practices; and identify a customized training path if a pre-determined one does not exist for a specific specialty or practice area.</td>
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<tr>
<td>Professionalism</td>
<td>PharmD graduates should be able to engage in ongoing personal leadership development and find opportunities for professional engagement through active membership and positional/non-positional leadership roles.</td>
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Table 2: Guiding Principles of SLD

<table>
<thead>
<tr>
<th>Motivation for Teaching and Learning: Why are we investing in student leadership development?</th>
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<tbody>
<tr>
<td>• Guiding Principle 1: Leadership is important for all student pharmacists to develop.</td>
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<td>• Guiding Principle 2: Leadership can be learned.</td>
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<tr>
<th>Fundamental Precepts of SLD: What commitment are we making when we agree to invest in student leadership development?</th>
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<tr>
<td>• Guiding Principle 3: Student leadership development must focus on student self-development.</td>
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<td>• Guiding Principle 4: Leadership development should take place in a wide variety of settings including didactic curriculum, experiential curriculum and extra-curricular involvement.</td>
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<tr>
<td>• Guiding Principle 5: Leadership development requires many “teachers” from whom students can learn.</td>
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<td>• Guiding Principle 6: A person’s leadership development is continuous.</td>
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</table>

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<tr>
<th>Core Tenets of SLD: What do students need to understand?</th>
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<tbody>
<tr>
<td>• Guiding Principle 7: Anyone has the potential to lead regardless of background, position or title.</td>
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<td>• Guiding Principle 8: Leadership is a choice.</td>
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<td>• Guiding Principle 9: Leadership is principle-based and rooted in the common good.</td>
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<td>• Guiding Principle 10: Leadership involves relationships with people.</td>
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<td>• Guiding Principle 11: There is no single right way to lead.</td>
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<td>• Guiding Principle 12: Leadership and management are distinct activities.</td>
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Table 3: Examples of Leadership Development Competencies

<table>
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<tr>
<th>Source</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pharmacy Leadership Instructors(^3)</td>
<td>Eleven (11) competencies in three areas (Leadership Knowledge, Personal Leadership Commitment and Leadership Skill Development) derived by a modified-Delphi process with specific consideration given to the competencies needed for entry level Doctor of Pharmacy graduates.</td>
</tr>
<tr>
<td>University of Arizona Student Leadership Competencies(^4)</td>
<td>Derived from a 5-year study of leadership development learning outcomes of 98 academic accrediting organizations, including ACPE. Includes an online tool for self-assessment of competencies. This list is a broad overview of topics which may be useful for identifying leadership competencies which may not be readily self-evident to pharmacy.</td>
</tr>
<tr>
<td>Goucher College(^5)</td>
<td>Twenty-four (24) leadership outcomes in 6 domains for a student leadership program at a small, secular liberal arts college with a liberal arts education mission and a study abroad requirement to meet humanitarian outcomes. The Goucher College outcomes are an example of a set of learning objectives tailored to the mission of an institution while retaining broader leadership principles.</td>
</tr>
<tr>
<td>Georgetown University Institute for Transformational Leadership(^6)</td>
<td>Ten (10) leadership outcomes representative of outcomes which reflect a faith-based (Jesuit Catholic) university mission. LD at faith-based institutions often have strong servant and/or personal-development themes, such as the Georgetown competency “Grow and expand as human beings even as they lead extraordinary outcomes for their communities and organizations”.</td>
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Appendix 1: Considerations for Student Leadership Development in Doctor of Pharmacy Curricula

This appendix may be used by curriculum committees, administrators, faculty and instructors as they seek to advance Student Leadership Development (SLD). SLD is defined here as an intentional, individualized effort to grow the ability of all student pharmacists to lead positive change with or without a title, which is delivered in a manner that encourages students’ active engagement in leadership.

Building the Curricular Framework (or Model)
What elements of our college/school mission, vision and goals should influence our SLD?
What specific leadership competencies will be ensured in our graduates?
In addition to leadership knowledge related competencies, which leadership skills will be emphasized?
How can we use these competencies to guide decisions related to the framework, content and delivery of SLD?
Which leadership framework (model) will guide our SLD initiatives?
What is our plan for horizontally and vertically integrating SLD in our didactic and experiential curriculum, as well as co-curricular and extracurricular experiences?
What interprofessional opportunities might we develop or evolve for SLD?

Creating the Environment
How can we facilitate the development of leadership role models?
Is LD adequately addressed in our college/school mission, goals and strategic plan?
How are we supporting and celebrating student, faculty and administrative leadership successes?
How are we emphasizing leadership with or without a leadership title?
How are we creating a culture that expects student leadership and fosters SLD?
How are we supporting faculty, administrator and alumni continuing professional leadership development?
How can we embrace extracurricular SLD which reaches all students?
How are we recognizing and optimizing the role that student organizations play in leadership development, while also supporting and collaborating with student organizations to advance SLD?
How are we maximizing partnerships and collaborations with other colleges and schools in and outside of pharmacy education for LD opportunities?
How well are we financially and administratively supporting sustainable SLD opportunities for all students?

Curricular Considerations
How might our recruitment process help to emphasize pharmacy leadership roles and responsibilities?
How might our admissions process incorporate leadership criteria?
How could the expectation of leadership and foundational leadership knowledge be strengthened within our orientation process?
Where is foundational leadership knowledge introduced in the curriculum?
How is SLD threaded through didactic courses and through experiential education?
What extra-curricular and post-graduate LD opportunities can be explored and developed to further support SLD?

Teaching/Learning Methods
What SLD methods are already in use within our didactic and experiential curriculum?
How do we integrate and highlight active learning strategies that reinforce SLD?
How might experiences from pharmacy or other disciplines aid us in designing SLD activities?
How can we facilitate student learning from other leaders?
How can we facilitate students’ self-directed leadership development?
How can we aid students in examining and learning from their own leadership experiences?

Assessment Methods
How is SLD represented in the college/school student learning assessment plan?
How will each SLD competency be assessed?
Where might we embed assignments (e.g. logs/journals, reports, reflections) that help us to assess competency attainment and/or growth?
What assessments are available related to the leadership framework/model we’re using in our program?
What measures help to build student self-awareness in leadership? What measures benefit our understanding of student development? Can some do address both purposes?