Professional Development of the SP Educator

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Abbreviations

AAMC	American Association of Medial Colleges
AMEE	Association for Medical Education in Europe
APMEC	Asia Pacific Medical Education Conference
ASPE	Association of Standardized Patient Educators
ASPiH	Association for Simulated Practice in Healthcare
CHSE	Certified Healthcare Simulation Educator
CHSE-A	Certified Healthcare Simulation Educator-Advanced
CHSOS	Certified Healthcare Simulation Operations Specialist
GEA	Group on Educational Affairs
IMSH	International Meeting on Simulation in Healthcare
INACSL	The International Nursing Association for Clinical Simulation and Learning.
IRB	Institutional Review Board
LCJR	Lasater Clinical Judgement Rubric
OSCE	Objective Structured Clinical Exam
OSTE	Objective Structured Teaching Exercise
PCL	Professional Learning Communities
RAPIDS	Rescuing a Patient in Deteriorating Situation
RCT	Randomized Controlled Trial
SESAM	Society in Europe for Simulation Applied to Medicine
SOBP	Standards of Best Practice
SP	Standardized/Simulated Patient
SPE	Standardized Patient Educator
SPN	The Simulated Patient Network
SPSS	Statistics Software Program
SSH	Society for Simulation in Healthcare
UK	United Kingdom
VSPN	Victorian Simulated Patient Network –

SP Educators (SPEs) engage in professional development to promote excellence in their own practices, within the community of practice, and among stakeholders. The role of SP Educators is an emerging profession, involving heterogeneous practices and no licensing process. The standards of professionalism key to the profession focuses on three principles: career development, scholarship, and leadership [1].

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Who Are Standardized Patient Educators and What Do They Do?

Several studies have looked at the Standardized Patient Educator, their role and responsibilities, and their backgrounds.

In 2009, Howley et al. conducted qualitative research using a structured interview with 61 programs affiliated with the Association of Standardized Patient Educators (ASPE). The information covered by the interview included:

1. Job title, experience, education level, demographics and job responsibilities
2. Year SP program established, number of staff, learners and type of activities
3. Program operations: number of SPs, case development process, methods of quality control, policies and procedures.
4. Facilities details
5. Recruitment and training methods

6. Program finances
7. Professional development needs of program

In summary, they found

1. Most common use of SP methodology was assessment and learning
2. Students were across the continuum of medical education and all healthcare professions.
3. Most programs have between 51–75 SPs in their pool
4. SPE came from a diverse backgrounds and professions.
5. Most SPEs held a bachelor's degree and some had masters

They felt further research was needed to understand the optimal qualities for an SPE and best practices for case development and administration [2].

In 2016, the ASPE Grants and Research Committee sponsored a research project to better understand the role of the SPE [3]. A demographic survey, which was part of a larger practice analysis done by the Society of Simulation in Healthcare (SSH) in 2011 to profile the role of a "healthcare simulation educator" was adapted for this Institutional Review Board (IRB) exempt study. The survey was sent to SPE experts in the field to preview. Minor changes were made based on their feedback. The 15-question demographic survey was made available for 5 months (06/2016–10/2016) on Line Survey via the ASPE listserv and the SP Listserv. In order to get a global perspective, the link to the survey was sent to international leaders in SP methodology to list on their local networks. Demographic Questions are provided in Table 11.1.

Of the 1500 potential respondents, 233 individuals successfully completed the survey for a return rate of 16%. 81.1% of the respondents were from the US, with Western Europe, Canada and Australia making up the remaining

Table 11.1 Demographic questions

1. Recent experience as a SP educator
2. Years of experience in the SP field
3. Formal training in SP methodology
4. Primary professional background
5. Educational theory and learning background
6. Primary role
7. Percentage of time spent in various roles in SP education
8. Learner groups
9. % of time spent conducting SP activities in various settings
10. Location of SP program
11. Simulation modalities
12. Highest level of education
13. Number of full-time employees in SP program
14. Number of programs served by SP program
15. Geographic region of practice

18.9%. 98.7% of the respondents had worked as a SPE in the last 5 years. The SPEs had worked on average 10 years with a range of 0–43 years. 66% reported having some formal training in SP methodology. The top primary professional backgrounds were education, theater, nursing and administration. 14% of respondents listed other. Figure 11.1 shows the variation of professional backgrounds SPEs within ASPE vs those simulation educators within the Society for Simulation in Healthcare. The key differences are in theater and communication.

Although most held bachelor's degrees, most had no preparation in education theory. While most SPEs focused on standardized patient methodology, they also reported incorporating hybrid/mixed modality, mannequin- and virtual-environments-based simulation as seen in Fig. 11.2.

The survey revealed that the SPEs spent most of their time in administrative duties (44%) followed by education (38%). While the average program may only have three to six full-time employees, an SPE can be responsible for over 100 SPs.

In 2017, Pritchard et al. [4] interviewed 15 seasoned SPEs on their current practices to better understand the key programmatic elements needed to provide optimal learning standardized based learning experience. Interview topics included:
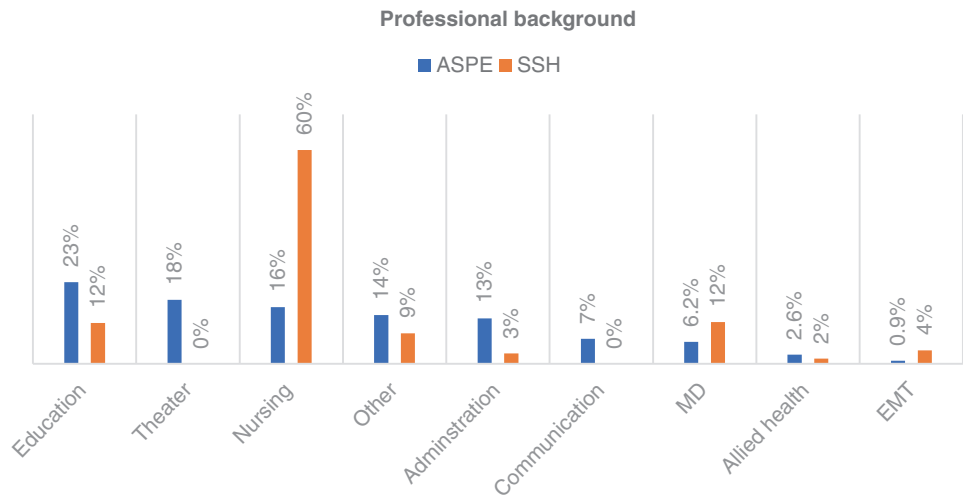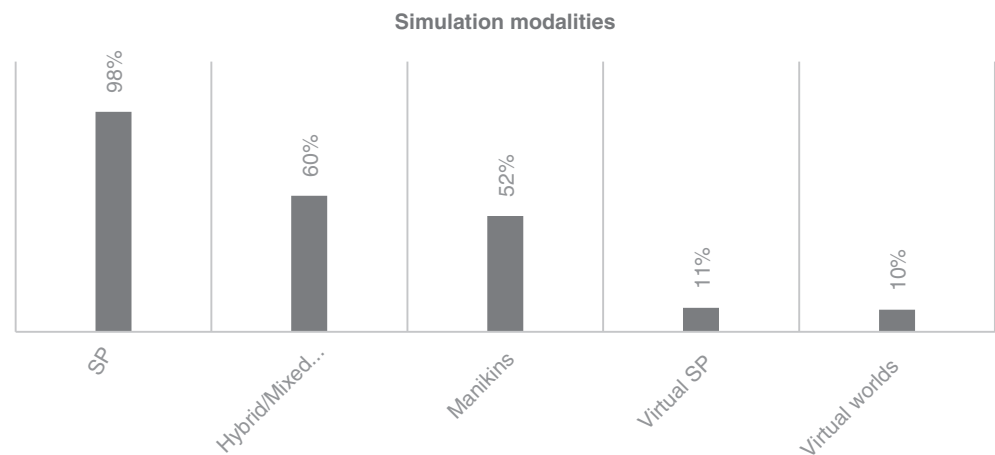
1. descriptions of current and previous roles as SPEs
2. how they developed their expertise
3. how they came to work in the field
4. what were the most important elements to developing and maintaining an effective program

Four strategies emerged although SPEs related a variety of methods for each strategy.

1. Creating an effective administrative structure, policies and procedures to manage program logistics. Include but are not limited to maintaining the physical space, equipment and supplies, creating and maintaining an up to date SP data base, reviewing application materials, selecting SPs for specific roles, collecting contracts and payroll, working with faculty and SPs to coordinate and set up different activities.
2. Creating a screening and selection process to match SPs to activity.
3. Preparing SPs for accurate role portrayal, providing feedback and completing assessment tools through different stages of preparation including "dress rehearsals" or "dry runs". Most SPEs reporting using some educational framework including but not limited to experiential learning
4. Providing a safe work environment for the SPS through pre-activity briefings and post activities debriefing/de-rolling.

Fig. 11.1 SPE professional backgrounds

Professional background

ASPE SSH

Education 23% 12% | Theater 18% 0% | Nursing 16% 60% | Other 14% 9% | Administration 13% 3% | Communication 7% 0% | MD 6.2% 12% | Allied health 2.6% 2% | EMT 0.9% 4%

Fig. 11.2 SPE simulation modalities

Simulation modalities

SP 98% | Hybrid/Mixed… 60% | Manikins 52% | Virtual SP 11% | Virtual worlds 10%

The authors hope this framework can inform novice educator seeking to build a high-quality SP program, enhance SP wellbeing and improve outcomes.

All of these studies demonstrate that SPEs are a diverse group of individuals and serve a variety of roles. The reason for the variance of SPEs roles and programs is related to local, institutional/funding models, discipline/professional and licensing requirements.

Given the varied backgrounds and roles, how does one learn how to become an SPE?

are emerging to offer certificates and Master of Science in medical and healthcare simulation, most of us learned and continue to learn on the job, with the help of mentors, conferences/courses, research on SP methodology and online communities. Stoll et al. [5] describe a PLC "as a group of people sharing and critically examining their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, and growth promoting way with the goal of enhancing their effectiveness as professionals for the learners' benefit." What better describes the SPE community?

Career Development

At present, traditional academic paths for SPEs do not exist. Many SPEs were once SPs themselves. It is common for SPs to move into administrative positions of a simulation program. The early development and continuation of Standardized Patient Educators (SPE) professional learning communities (PLC) is at the heart of career development for SPEs. While brick and mortar schools and online programs

Building Your Professional Learning Community

Professional simulation associations/societies Membership in a professional organization offers opportunities for novice SPEs to improve their knowledge, skills and behaviors by attending conferences, through networking, and on-line resources. Many professional organizations have career

resources and job boards only available to members. They can also provide insights on how to navigate through the profession and how it works. By attending conferences, one can learn from the leaders in SP education.

Conferences Several professional organizations have annual meetings and/or conferences. Attending annual meetings can provide validation, inspiration, and motivation for you to move forward in your career. Being removed from the day to day of the job, you can take time to reflect with SPEs who are interested in the same area as you, learn about and from one another, create joint projects and build and maintain your professional learning community. Consider joining a committee or two of interest. Committee membership is the quickest way to learn more about an area with which you are unfamiliar. For example, if you are interested in innovation and research, but have no experience, don't let that stop you. The SPE community is always welcoming and knows that today's novice is tomorrow expert. Before you know it, you will be presenting a poster or a workshop and considering a leadership role.

Networking This is especially important if you are the only SPE at your institution or in your region. Given the busy life of an SPE, finding time to keep up with latest advances in SP methodology can be daunting. Using online resources one can find other SPEs, adding variety to your network of friends in the industry, establishing a support system and creating professional relationships. Networking helps and supports us to reach our professional goals.

An important online resource that is hosted by the University of Washington is the SP-Trainer listserv. Many of us have availed ourselves of this on-line community as we were beginning our careers. Even after 20 years as an SPE, I still find it to be a valuable resource. This listserv is an online format for the discussion of education using Standardized Patient methodology and other types of simulations. Go to https://mailman13.u.washington.edu/mailman/listinfo/sp-trainer to subscribe.

There are professional organizations that support simulation and simulation based education.

1. **The Association of Standardized Patient Educators (ASPE)** is an international organization of Simulated Patient Educators. Formed in 2001, the organization focuses on human simulation. ASPE is the international organization of 600 simulation educators dedicated to:
   - Promoting best practices in the application of SP methodology for education, assessment and research
   - Fostering the dissemination of research and scholarship in the field of SP methodology

- Advancing the professional knowledge and skills of its members
- Transforming professional performance through the power of human interaction.

   The organization includes SPEs from many healthcare fields such as; physical therapy, social work, dentistry, nursing, medicine, pharmacy, veterinary medicine, and other professions such as; education, legal, security and clergy. The association offers annual conferences, job board, membership listserv and the Virtual Learning Center, including:
- Live webinars conducted by international experts
- Archived webinars
- Video/recordings, articles, toolkits, how-to-guides
- Web-based newsletters
- Archived newsletters
- Mentorship programs for personal assistance
- A link to the SP trainer listserv
- Access to Konsiderate, a platform for medical simulation service and product reviews
- Access to a web-based searchable member directory of SPEs worldwide. https://www.aspeducators.org/

2. **The Society for Simulation in Healthcare's (SSH)** purpose is to serve a global community of practice enhancing the quality of healthcare. The mission of SSH is to
   - Serves our members by fostering education, professional development, and the advancement of research and innovation
   - Promotes the profession of healthcare simulation through standards and ethics
   - Champions healthcare simulation through advocating, sharing, facilitating, and collaborating
   SSH supports educators, healthcare providers, researchers, administrators, curriculum developers, technologists, and policy makers keep up to date with developments in the rapidly changing world of simulation-based education in healthcare. SSH's activities include the annual International Meeting on Simulation in Healthcare (IMSH), publications including Simulation in Healthcare, special interest and affinity groups, accreditation of simulation programs, and certification of simulation professionals. In addition to the annual meeting, IMSH, members communicate with one another throughout the year. The discussion boards and resource libraries found in our online collaboration site, Sim Connect, facilitates online sharing. http://www.ssih.org/

3. **The International Nursing Association for Clinical Simulation and Learning.** INACSL's mission is to advance the science of healthcare simulation. Their mission/vision is to advance the science of healthcare simulation and to be the global leader in transforming practice to improve patient safety through excellence in healthcare simulation.

INACSL's goals are:

- To provide innovative professional development to members and non-members regionally, nationally, and globally.
- To provide expand networking/collaboration opportunities to extend the membership and reach of the organization.
- To advance the science of healthcare simulation for academe, practice, industry, and other relevant stakeholders.
- To develop, review and update policies and procedures to support the work of the organization. https://www.inacsl.org/

4. **Sim-One** connects the simulation community, facilities, and resources across Canada and beyond. They advocate for and advance simulated learning in health professions education for the benefit of patient care and safety. They offer advanced educational training and simulationist certification, including the Keystones of Healthcare Simulation and Mastering the Artistic Side of Clinical Simulation (MASCS) certificate programs. They host a number of free, online services that are open to simulationists and health professionals across the globe. This includes the scenario exchange for peer-reviewed simulation scenarios and tools, a marketplace for the buying and selling of gently-used simulation equipment and more. They host Canada's premier healthcare simulation events, the annual SIM Expo and the National Forum on Simulation for Quality and Safety. Their vision/mission is to ensure exceptional patient care and outcomes through simulation and by advocating and advancing simulation to improve healthcare education, patient safety, and quality improvement; and connect all healthcare and human service professions, disciplines, and care delivery sectors. https://www.sim-one.ca/

5. **The Association for Simulated Practice in Healthcare (ASPiH)** is an association whose membership is comprised healthcare, education and patient safety backgrounds including researchers, learning technologists, workforce development or education managers, administrators, and healthcare staff and students. The membership bridges undergraduate and pre- registration education as well as postgraduate and post registration training and on-going continuing professional development for all of the health and social care workforce. The association was initially organized in the UK and Ireland and is now a global organization. They created the Standards for Simulation Based Education to combine relevant best practices and published evidence in simulation-based education for all healthcare professionals with consideration of a number of existing quality assurance processes currently in use across the UK and around the world. ASPiH providing an accreditation process for individu-

als, program and organizations to demonstrate that they are delivering high quality simulation-based education that will benefit patient care in clinical practice. https://aspih.org.uk/

The current aims of the Association are to:

- provide an effective communication network for those involved in simulation and technology enhanced learning across the UK and beyond
- provide quality exemplars of best practice in the application of simulated practice to education, training, assessment and research in healthcare
- support the expansion and uptake of simulated practice by establishing key benefits and evidence of impact linking simulated practice with improvements in patient safety and quality of care
- develop and share key operational and strategic resources for members drawn from experience within the association and from links with relevant educational bodies nationally and internationally
- encourage and support scholarly development and recognition of members through wider dissemination of innovative practice at scientific meetings and publications
- become the "go to" independent organization for those looking for expertise, advice and information about healthcare simulation and technology enhanced learning

6. **The Society for Simulation in Europe (SESAM)** was formed 20 years ago in Copenhagen. The purpose of SESAM is encourage and support the use of simulation in health care for the purpose of training and research through the development and application of simulation in education, research and quality management in medicine and health care, facilitation, exchange and improvement of the technology and knowledge throughout Europe and the establishment of combined research facilities. SESAM hosts an annual conference and edits and publishes the journal *Advances in Simulation*. They provide access to a shared educational resource, and online networking. They offer accreditation to a program using a broad variety of simulation modalities. These can be simulation centers with dedicated space, mobile units that function completely 'out-of-the box', mannequin-based facilities, or departments relying on standardized patient (SP) methodology. https://www.sesam-web.org/

7. **The Simulated Patient Network (SPN)** (previously, *Victorian Simulated Patient Network – VSPN*) provides a professional network, website and e-learning resources for individuals involved in the recruitment, training and quality assurance of SPs to work in all areas and at all levels of health professional training and professional development. http://www.simulated-patientnetwork.org/

Advance Your Knowledge and Career

Many healthcare schools and institutions offer instructor courses and these offers are increasing in numbers. Here is a selection of SPE Instructor courses.

1. **Southern Illinois University School of Medicine** conducts a week long workshop for SPEs "Training and Using Standardized Patients for Teaching and Assessment" This workshop is designed to teach participants to recruit, train, and supervise the performance of SPs as well as to develop cases and assessment materials for use in both teaching and assessment. At the conclusion of this activity, participants will be able to:
   - Describe the basics of SP program development and management (recruitment, casting, supervision and personnel administration).
   - Discuss issues involved in using SPs for assessment (administration, curricular impact, resource planning, and psychometrics).
   - Discuss issues involved in using SP methodology for teaching (objectives, integration, case selection, delivery options, logistics, feedback).
   - Develop training materials and use them effectively.
   - Develop checklists and other examination materials for use with SPs.
   - Practice SP training principles and techniques.
     This workshop is a good introcution for novice SPEs. http://www.siumed.edu/oec/sp/events/training-and-using-standardized-patients-teaching-and-assessment.html

2. **The University of Illinois, College of Medicine** offers a one-week intensive "Professional Development and Certificate Programs for Standardized Patient Educators". Here you will learn to create a high quality standardized-patient based educational programs to enhance health professions education. Designed for simulation educators in the health professions:
   - Directors and staff of simulation and standardized patient (SP) centers
   - Faculty who wish to leverage SPs to enhance their educational programs
   - Intensive sessions focusing on key topics in SP-based education
   - Small class sizes, highly interactive, abundant hands-on practice. https://chicago.medicine.uic.edu/departments/academic-departments/medical-education/dme-educational-programs/certificate-programs/standardized-patient-educator/

3. **University of Maastricht School of Health Professions Education (SHE)** conducts a 3 day long "Advanced Simulated Patient Course" every 2 years. Basic overview of course covers SP training techniques, selecting and building a case, check list frameworks, training SPs in portrayal, verbal/written feedback and assessment tool completion. They cover quality assurances for portrayal, checklist, and feedback accuracy. The last day covers research with SP methodology. https://she.mumc.maastrichtuniversity.nl/programme-details-simulated-standardized-patients-course

4. **The Society for Simulation in Healthcare** developed a certification known as Certified Healthcare Simulation Educator (CHSE) and Certified Healthcare Simulation Educator- Advanced (CHSE-A). The goal of the certification is to promote competence, recognition and development of SPEs. Those involved with simulations in healthcare education or those who administer/oversee simulations in healthcare education should consider seeking a CHSE certification. The CHSE certification is intended for SPE with at least 2 years of experience. The CHSE-A is an advanced certification of CHSE and requires 5 years of continuous use of simulation in healthcare education, research or administration. Those with this certification must be CHSE certified and can go on to serve as mentors. https://www.ssih.org/Credentialing/Certification

5. **Penn State College of Medicine** offers a certificate course entitled "Teaching with Simulation: An Instructor Certificate Course." This is a week-long course with both didactic and experiential learning. This course includes didactic and experiential learning, practice, and reflective feedback, simulation fundamentals, philosophy and scope.
   - Simulation and education theory
   - Curriculum design
   - Feedback and coaching in skills acquisition
   - Design, implementation and debriefing simulations,
   - Creating high-level learning outcomes, objectives and activities for simulation
   - Team training and how to create scenarios for learning
   - Using standardized patient methodology
   - Combining different types of simulation modalities
   - Incorporating interprofessional education into simulation
   - Simulation theory and education research
   - Evaluating an educational session
   - Continued faculty development
   - The Objective Structured Clinical Exam (OSCE) and Objective Structured Teaching Exercise (OSTE) experience https://ce.med.psu.edu/teaching-with-simulation/

6. **Drexel University College of Medicine:** Offers a part time two-year program offering advance training in simulation teaching, curriculum design, and fundamentals of simulation research in an interprofessional setting. The program is a blended curriculum of online

course work with 3 weeks on campus week long immersive simulation sessions. Through this program you will be able to:

- Use simulation as a training and educational tool for others
- Empower others to transfer what they've learned through training scenarios to the workplace to improve services and increase patient safety
- Evaluate the effectiveness of your teaching in simulation
- Behave and communicate more effectively as part of a team, particularly in a crisis https://drexel.edu/medicine/academics/graduate-school/medical-and-healthcare-simulation/

Once you have started in the role of SPE, how do you grow within the field? In the next section we will look at how to prepare yourself for a leadership role.

Leadership

The field of SP Education embraces a broad and inclusive model of leadership, one that encompasses promotion and development of the methodology, the practice, your peers, and yourself. While it is not within the scope of this chapter to present a discussion of general leadership skills and techniques, the literature on this topic is considerable and worth seeking out in your own career development efforts. Here, the focus will be on the specific aspects of leadership likely to play significant roles over the full span of an SP Educator's career.

When we think of leaders in the profession, it is tempting to think of the mid-to-late career professionals, with considerable experience and the august reputations to match, who have the knowledge and context to offer direction to the development of SP methodology. While this certainly defines many leaders, this view may prevent SPEs at all levels of experience from developing their full potential. In addition, such a view may impede the development of the profession itself by restricting access to the full diversity of participation across the field. A significant component of "best practice" throughout your career as an SPE is to continuously explore and use your own leadership potential and to seek out and nurture it in others [6].

If we reframe our definition of a leader to encompass the concept of "servant leadership", it allows us to take a wider view of the possible benefits of participation at all stages and ranks of a career:

The servant-leader is servant first… It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead [7].

When leadership is viewed through this lens, even the newest SPE can find a place to serve the profession and will discover several career advancement and job satisfaction reasons for seeking these opportunities out. You may find leadership opportunities in more traditional service pathways (committee membership, heading a presentation group at a conference, serving as an association officer). You may also bring your own creativity and skills to bear in the field, sparking the development of as-yet-unknown forms of service and leadership at your own institution and within the larger simulation profession.

Participating in leadership activities may provide benefits:

- becoming involved in an active peer network
- sharing support and guidance
- engaging in a mentoring relationship

Finally, there is a demonstrated "return on investment" in fostering leadership development. There are clear benefits to SPEs, programs, and institutions from participation in professional societies, peer networks, and research collaborations. Gains in communication skills, teamwork ability, and breadth of context, as well as personal and professional resiliency, are dividends of the close ties developed during such affiliation.

Getting Started

SP education is both a young field, having coalesced into a profession primarily during the 1990s and a creative endeavor, and as such has provided many SPEs robust opportunities to develop inventive forms of participation in leadership. The formation of the Association of Standardized Patient Educators (ASPE) is a salient example. In 2001, several SPEs joined together to create the new professional society and many of the resources called upon during this time were brought to the group by SPEs combining their experience with SP methodology with their outside interests and skills. For instance, several SPEs with backgrounds in communication, computers, and writing led the development of the first communications committee and newsletter, and anyone with experience planning events found an appreciative home for their skills as ASPE launched the first annual conference.

As ASPE has become a more mature organization, the opportunities for participation in formal leadership (board of directors, officers, committee service, special interest groups) have become more structured. This maturation can be seen in other simulation associations of similar age (e.g., Society for Simulation in Healthcare, International Nursing Association for Clinical Simulation and Learning) and may

give you the impression that the chances to "lead" within the profession are restricted to these formal roles. However, past experience would indicate that there will be exponentially more opportunities awaiting simulation professionals that simply cannot currently be forecast, as the field integrates diverse new members and reacts to changes in education, clinical care, political climate, and technology. In her SimOps 2018 plenary speech (speaking about both operations specifically and simulation generally), Jamie Stiner, CHSOS, Simulation Operation Specialist, University of Texas Southwestern Medical Center, stated: "Most of us got into the profession by chance and have found a passion for it.... Our uniqueness, our creativity is what makes this profession exciting to be part of and to accelerate forward" [8]. The most successful emerging leaders in simulation keep a careful eye out to find missing or underdeveloped arenas where they can serve the field, and do not wait to be asked before stepping forward to seek and offer solutions. SPEs at all career stages, but particularly those in the first stages of their careers, are encouraged to think broadly, creatively, and boldly about their vision for their work and our collective professional future.

How might you put the above principles into practice? While thinking expansively and creatively is key to leveraging your own unique skills and abilities as a leader within the realm of simulation education, there are several paths on which to focus.

Initially, seek to develop and demonstrate leadership skills within your own SP program. Even as a new SPE you will be tasked with motivating SPs and other staff to their best efforts, and will need to weave vision, values, and mission into the daily work of a busy SP program. In conversation with Robert MacAulay, Director, Standardized Patient Program, University of California San Diego, School of Medicine in April 2019, he took care to tie this concept into that of the larger "servant leader" perspective – advocating that SPEs shouldn't look to serve outside their programs until they are sure all stakeholders are being well-served internally. Because providing this level of stakeholder support requires program promotion and advocacy, collection and presentation of data, teamwork across divisions, communication skills, and managerial acumen, significant leadership ability can be developed during your daily work. This work environment is also likely to offer you frequent feedback from supervisors, peers, clients, and subordinates, and to allow for needed practice and self-reflection.

Seeking additional opportunity to lead within the current institution, network, or region is an excellent way to begin to build a reputation and set of skills related to presentations and speaking, advocacy of human simulation, and teamwork with others in related fields. Even during the early stages of your career, you will often be the best local expert on the methodology and able to influence the perception of the value of SP-based activities (and the adoption of best practices) more widely than you may have initially anticipated. For examples, you might seek to join a curriculum review committee, to participate in an interactive classroom design task force, or offer to present on simulation topics at various informal roundtables, if working in an academic environment. In hospitals and simulation centers, you can volunteer to participate in simulation preparation, deployment, and debriefing in a variety of contexts. Even being willing to serve as a demonstration SP or a scripted embedded participant yourself can be an excellent way to share the benefits of the methodology, to lead by example, and to benefit the larger institutional community. These strategies can be expanded upon by offering others the opportunity to come and observe your SP program at work, or by attending sessions at their site and sharing best practices as appropriate. Job or program-shadowing and expert site visits are a common way for new SPEs to get new programs launched effectively. Educators and institutions that have encouraged and made these visits have expanded their reputation and scope of influence within the larger simulation community.

Leadership in Professional Associations

"Professional societies form a living matrix where minds meet and engage and where trusted colleagues pool their knowledge, helping each other to glimpse and plumb larger forces at work, to see connections among events, and to imagine the future" [9, p 91]. Active participation in professional societies and conferences can also positively affect your career development. In addition to the obvious scholarly benefits of sharing research or innovative practices at regional and international meetings of educators, a successful presentation will both develop and demonstrate your competence in the topics covered. Again, thinking creatively, consider attending and presenting your work not only at simulation conferences but also at adjacent meetings - general education, technology/modeling and clinical practice conferences are all good places to start, but should not be considered a limit. If you find an intersection between your own interests, simulation methodology, and a third field, you may also find at that intersection both an eager audience and a fruitful place to grow as both an expert and a leader.

Professional societies also offer you the opportunity to serve in a traditional leadership role, such as that of elected board officer, committee chair, or task-force lead. It is common for new members of organizations to find the path to such service "cloaked in secrecy" due to "unclear policies and practices", but this perception is not necessarily borne out by the actual experiences of association members [10]. Most academic professional associations are entirely or partially volunteer-based, so a member who is willing to iden-

tify themselves to current leadership as ready to "do the scut work" is typically welcomed. By demonstrating reliability, competence, and enthusiasm in lower level opportunities (e.g., working group participation, volunteering as a facilitator/presenter assistant at conferences, being willing to staff the information table at an event), you are likely to be offered several additional opportunities to both serve and lead. If you combine willingness to assist with a clear assessment of where best to "jump in", you will find several options to match your professional interests [11]. This service also leads to opportunities to share those interests with leaders, mentors, and admired peers. The so-called "elevator pitch" (a ~30 second summary of an interest area) can be put to good use at conferences – many a presentation collaboration or committee appointment has been secured during a ride between floors or a chat with a workshop table-mate. It may be necessary to speak up several times – an unanswered email or suggestion offered during a committee meeting should not be taken as a personal rejection but instead seen as likely buried in the daily tasks of those currently serving in leadership positions. In correspondence, Tamara Owens, PhD., Director of the Clinical Skills and Simulation Centers, Howard University Health Sciences, and past ASPE President, had this advice for new SPE looking for ways to participate:

> My advice to a new SPE is be receptive to the process... Invest in yourself and invest in the organization and both will benefit. Give back to the organization by joining a committee to keep the organization moving forward. Understand the organization. Become the organization's representative at your home school. When the time is right you will have equipped yourself to be a leader to take the organization to the next level.

The Role of Mentoring in the Field of Simulation

While it is important to look for entries to service when beginning a membership with a professional association, it is possible to toil too long in obscurity, and it may take more than hard work and a cheerful spirit to move to the next levels of leadership. You may need a champion, a coach, a cheering section, and some timely feedback. Consider the benefit of mentoring to the development of SPEs as leaders. The traditional definition of a mentor is typically someone who is more experienced, and frequently, located at the same institution so that a formal relationship directly benefiting the work done at that institution is developed [12]. During our correspondence, both Robert McCauley and Tamara Owens spoke at length about the positive impact of such "primary" mentors on their careers, especially in helping to identify areas of potential growth in the early years. Since our field is comprised of educators with diverse backgrounds,

you may need to seek secondary and tertiary mentors outside the immediate workplace. Extended mentors come from the "rich network of more distal yet caring supportive training relationships" [13] and can include program peers, role models, research teams, friends made at meetings and conferences, and dedicated online communities. SPEs can serve as informal mentors frequently throughout their careers and receive such mentoring from peers in return. A traditional mentoring relationship has important specific benefits such as visibility within an institution, sponsorship for opportunity, coaching, and counseling. The "mutuality" of an extended mentoring network provides several unique benefits:

- share concerns
- find support
- receive feedback
- seek solutions
- collaborate in projects and presentations
- engage in research
- influence policy-making

Many of these relationships persist over the length of a career and providing leadership development and significantly increase emotional engagement in the profession [14]. For many SPEs, an extended mentoring network has proved crucial for professional growth.

Considerations for the Mid and Late-Career Educator

Leadership development remains essential through all stages of a career in SP education. As healthcare simulation is still a growing field, the primary passage of information and best practice has been through professionals working together. How might mid and late-career SPEs best serve in mentoring and collaborative relationships? Just as at the beginning of your career you might not recognize early opportunities for leadership, when approaching the "second half" of your career you may not notice the chance to appropriately pivot your leadership – either by reaching out more broadly in the field to share expertise (e.g., expanding from simulation advocacy to general healthcare advocacy organizations), by using your influence to promote research and best practices widely, or by offering formal or casual mentoring to others. Again, a shift from thinking of leadership as something to be earned or awarded, to a sense of leadership as "service", can help to clarify. Experienced SPEs have much to offer to the field and the community, and should consider involvement in leadership, organizational and professional development, networking, and mentoring throughout their careers.

SPEs who currently serve in formal leadership roles (such as committee and SIG chairs, conference planners, and board directors), must be cognizant of the vulnerability often felt by those seeking to join an established group such as new SPEs or educators with experience in the field but less time in professional societies. When you serve as a leader, it is critical to take time to respond to queries about joining committees or running for office, even when (or most especially when) there isn't currently a suitable opening. Share feedback about how SPEs can become eligible to participate at the level of their interest, and if there is another opportunity elsewhere, offer to introduce and support their involvement [15].

As a leader in a formal role you may find yourself in need of new members for a committee or task force and unsure how to find the right candidates. Again, this is where a strong network of mentor and peer relationships, built on your participation in conferences, societies, and online forums can help. Take the time to contact the first-time presenter who impressed you at the last ASPE meeting, or that member of an email list you may never have met in person, but who always takes the time to reply to listserv requests. Get in touch with SPEs working in other parts of the world or in simulation environments not currently well represented in your committees. It is important to stay "tuned in" to new members of the field, and to recognize and promote their unique contributions.

In correspondence, Tamara Owens encouraged all mid-career SPEs to practice leadership both broadly and deeply by serving at their home institutions and internationally through role-modeling, mentoring, publishing, and presenting. She also spoke to the particular need to keep late-career and retired SPEs involved in the field:

> Mentoring the next generation and advising the board should be the focus. There should be time set aside for Wisdom Circles in which they could engage with the next generation.

As SP methodology moves confidently into the next 50 years, preserving the knowledge and guidance of those leaders who have gone before will be of utmost importance, and it is incumbent on all SPEs to reach out, across, up, and down the experience levels to preserve the roots of the methodology while also fostering its new growth.

Making Leadership a Priority

For most SPEs, the opportunity to participate fully in professional societies and other forms of leadership and career development will depend on support from the home institution, whether by funding travel to conferences, promoting SPE involvement in various committees and task forces, or by allowing time for leadership training, mentoring, and service. While many SPEs find that some of these activities are explicitly written into their job descriptions, you may have to make a case for the "return on investment" for various forms of participation to supervisors and department heads.

When seeking support for leadership development activities, it is helpful to clearly describe the direct benefits to the institution. Encouraging staff to participate in traditional forms of leadership training, such as certificate programs, job-shadowing, coaching, and self-directed study/reflection can have an immediate positive impact on team effectiveness and will extend the number of emerging leaders in the "pipeline" throughout an institution, increasing organizational resilience [13, 14].

Additionally, collaboration and leadership outside of a primary team functions as a form of developmental job training of the type not as easily obtained "in-house". In a discussion on the benefits of professional societies and leadership development, C. Donald Combs, Ph.D., Vice President and Dean, School of Health Professions, Eastern Virginia Medical School shared his thoughts on the type of crucial skills that can only be developed when you engage with a wider field:

> Communication within an organization is obviously important. In a networked, collaborative era where the challenges often exceed the resources that a single institution can commit, communication with outsiders is also important, indeed usually as important as communication internally. Communication with outsiders is easier when you have experience with the way other organizations set priorities and work to achieve them. That experience often allows you to communicate in terms that others can really understand. That contextual communication requires exposure to other organizations and settings.

In addition to improved communication and interpersonal interaction, participation in the leadership of professional associations and other multi-institutional collaborations may also allow SPEs to develop a wide variety of other skills, including budgeting, event planning, publishing, organization, and marketing that can then be utilized in their daily work [10].

Donald Combs encouraged SPEs to be persistent and flexible while working to secure funding and release time to participate in outside activities:

> No one gets their preferred way forward all the time and that is actually a good thing. The key is to keep pushing when opportunities arise and take the long view...most change is incremental, a result of perseverance--two steps forward, one step back is still forward!

While institutional support is important, the internal motivation to engage in your own leadership development is critical to your success. It can seem overwhelming to consider adding "networking" time into a busy work schedule, but do not undervalue the potential of these relationships throughout your work. As Tamara Owens cautioned: "The process starts now. There will never be the perfect time".

Even when SPEs are encouraged to assume leadership roles in organizations, collaborative research, or peer mentoring as part of their formal duties, it is inevitable that these tasks will also require personal time and commitment.

Happily, there is evidence that participation in an extended network of mentors, peers, and role-models as part of one's career improves an SPE's ability to "bounce back" in a busy, high-stress environment. Professional societies, online forums, and scholarly collaborations allow access to a rich network of peers who understand the unique challenges of SP Methodology and who may serve as mentors, sounding boards, and sympathetic listeners [17].

In her dissertation, Holly A. Gerzina, PhD, MEd, CHSE, Executive Director, Simulation, Standardized Patients, and Interprofessional Education Services, Northeast Ohio Medical University, studied the effect of participation in ASPE on resilience of SPEs and found a significant positive effect:

> ...Findings supported that ASPE could serve members and enhance resilience in a number of ways including enhancing engagement via connection to members of a common professional society and by providing a dynamic vibrant community to network, reflect, and support one another through the natural challenges of professional work [16].

Holly Gerzina followed up in conversation: "In that sense, sending someone to a conference once a year could be seen as providing a 'booster shot' for resilience." Similarly, you might find that a phone call to a colleague to follow up on their comments during a committee meeting, an email list exchange about process improvement, or a check-in with a mentor can add to your own feeling of meaning and connection in your work. Participation in the variety of leadership opportunities available in SP methodology, be it formal service within a professional association, informal participation in peer networking, or any of the options in between, is likely to bring satisfaction well beyond the initial investment of time and should be a vital part of the SPE career path.

In addition to the day to day operations, SPEs play an essential role in assessing the outcomes of standards and new applications of SP methodology through scholarly inquiry. Whether you are staff or faculty, opportunities for scholarship are extensive. Hundreds of new publications describing SPs in teaching or assessment become available each year, with new disciplines both within and outside healthcare adapting this methodology. The next section will provide you with a framework for scholarly inquiry related to SP methodology. We will provide a guide to turn your everyday work into educational scholarship.

Educational Scholarship

Curiosity is the key to scholarship. So much of what is done in day to day work with SPs, while essential to the educational mission, can feel very routine. Have you ever found yourself asking "Why do we train this way?" "Why did the learner do that?" "Why is it so difficult to recruit for this case?" … Questioning each part of an SP activity is the beginning of forming scholarly inquiries. Dividing any activity into three sections can help: What was done to create/prepare the activity, what happened during the activity, and what were the outcomes. Each step is rich with processes that may benefit from a more in-depth look. Figure 11.1 provides basics of an SP activity that can guide thoughtful, scholarly questions. While this may seem oversimplified, understanding what does (or does not) work when using SP Methodology in an educational setting is imperative to continue to develop evidence-based practice guidelines and to advance our profession.

Several excellent papers have been written to guide scholarly work, and the principles outlined are directly applicable to work with SPs. An often-cited framework for scholarly work in education comes from Glassick, Huber, and Maeroff [17].

A Framework for Scholarly/Scholarship Work

1. Clear Goals: state basic purpose of work, define realistic and achievable objectives.
2. Adequate Preparation: show an understanding of existing scholarship in this area, share skill set and resources needed to complete project
3. Appropriate Methods: choose methods that match the goals
4. Significant Results: share results
5. Effective Presentation: use effective organization and forums when presenting work
6. Reflective Critique: Provide an evaluation of you own work, comment on limitations and next steps.

This framework is not intended solely to guide research, it should underlie the approach to all educational activities. If an activity is developed using a scholarly approach, not only will the credibility of the activity be optimized, but the potential for scholarship from the activity is enhanced.

Considering educational scholarship – what does it take? The remainder of this chapter will focus on a practical application of the above criteria – from developing a scholarly query to the product of educational scholarship. To become a piece of scholarship work needs to meet three basic criteria: it needs to be made public, it should have undergone peer review, and it needs to be presented in a way that others can build upon it. While many people immediately think of a journal publication as the example of educational scholarship, there are many other opportunities to disseminate work and contribute to our growing profession. Ultimately, the goal is to share ideas and practical applications of SP methodology with others in our community.

Clear Goals

Goals of the activity can be framed in the global sense (e.g.: what is the overall purpose of this activity?) or can be addressed at a very granular level (e.g.: what is the goal for

the debriefing of the SPs?). Goals require a clear framing of the activity in aggregate and of each step. Setting the goals will generate questions, and these questions can lead to scholarship. Writing the question to frame your project is difficult, and typically requires multiple edits. Start with the area that most interests you in your work. If you are not curious or passionate about a topic, spending time exploring it will be draining. Start by trying to articulate what you want to study. In the beginning you are likely to ask a question that is too broad or too complex to answer. Continue to ask "to what end" or "why" until you are able to frame the question succinctly. Your ultimate goal is to be able to communicate the question in one to two sentences and tell others what you are studying in a short, focused statement.

> *Example*
> Years ago, a colleague of mine became interested in the topic of empathy. As he was trying to frame a question, he told me "I am going to study empathy". As we further worked on framing his question, it became evident that his interest in the topic came from reviewing video-encounters of students interacting with SPs who presented with pain. We continued to ask the "what" and "why" questions until we refined his query to "do students respond to patients' non-verbal cues of acute pain with a purposeful statement or action". He looked specifically at times patients transferred from the chair to the examination table (with the SPs trained to demonstrate pain through slow movement and grimacing) and observed for statements or actions by the student that demonstrated an awareness and concern for the patient's discomfort. While this question may seem almost trivial, studying this took a few months and resulted in several additional questions for future work. His initial work resulted in a poster presentation accepted for a research forum.

You may find it useful to think about what you want to report from your study while you are creating the question and considering the methods. Think about tables of data that would be valuable to report. Then think about how you are planning to collect and analyze the data. For example: if the length of time a person has been working as an SP, or a learner's level of training might be important in your analysis, be certain to collect that information up front.

Adequate Preparation

It is essential to be aware of existing practice standards or prior work that describes activities or studies similar to what you are interested in doing. This requires becoming familiar with resources describing the application of SP methodology and applying these principles to your work. Several books have been published providing guidelines for working with SPs, and the literature is rich with descriptions of innovative applications of SP methodology. Reaching out to colleagues through direct contact or a listserv can also provide insight into how to structure an activity, or—as importantly—how *not* to do something, though sharing lessons learned. Reading

the literature is key to framing questions and is the foundation for educational scholarship. Learning how to perform an effective data-based search is key. Because literature describing SP methodology is widespread, using several search strategies to explore your interests is imperative. Medline, CINAHL, Web of Science, and Google Scholar are great resources to begin your search. If you are not experienced in searching the literature, or you want to optimize your search, reach out to your reference librarian. Reference librarians are exceptionally knowledgeable about where to find information or specific search terms and can guide you to select materials from credible sources. From your area of interest identify keywords that focus your work. You may find it useful to write out your question and highlight the main words. Using the above example, we began exploring the literature with the search term "simulated patient", "standardized patient" and "patient simulation". We then narrowed the narrowed the question by combining that outcome with the term "empathy". The initial list of articles was easy to scan and resulted in a few key articles to ground the work.

Appropriate Methods

Much of the work that we do on a day to day basis generates information that can serve as the grounds for scholarly inquiry. Identifying which information, and how it needs to be captured and organized, is needed early on. Examples of questions specific to the SP process are highlighted in Table 11.2. Yet there are countless unanswered questions that arise during activities employing SPs. For SPEs without a

Table 11.2 Three steps of SP activities

Preparation
Why is this being done?
What are the learning objectives; how were they created?
Who are the learners (is this a unique population)?
How have the training materials and or checklists been created?
Any special training techniques being applied?
Is the setting for this activity unusual?
Was SP recruitment done in a new way?
Were a special population of people employed?
Activity
Is there something unique about the set or flow of the activity?
What is needed to ensure that SPs have the appropriate resources (time/equipment) to optimally perform their job
Are the leaners fully engaged in this activity- if no, were there barriers, if yes what made it work?
Outcomes
What are the debriefing process for the learners, the SPs and the SP center staff?
Were the learning activities met?
How was student performance assessed?
Were there any unanticipated outcomes?
What was the impact of the activity on the SPs?

research background, mentoring for this step is key. It is disheartening to complete an activity and recognize retrospectively that the processes you should have been using were not followed. Sometimes it is as simple as ensuring that audio or video-recordings of encounters will be available after the session to review. At other times, copies of the checklist used in the activity, or the addition of questions to an existing checklist, may be needed to address your question. If a debriefing session will provide needed information for your study, capturing information in a systematic way during the discussion is essential. Additional methods may include focus groups or surveys. The steps for each process must be outlined and adhered to during the study.

What Type of Research Methods Suits You?

Quantitative Methods

Quantitative methods are typically used to measure how much or how frequently a phenomenon occurs. Quantitative methods gather numeric data from a large number of participants to measure outcomes and to directly address the research question which starts with a null hypothesis (a general statement that there is no relationship among the variables).

Example
Andrea and Kotowski [18] thought that SP methodology was an effective teaching method to increase first semester baccalaureate undergraduate nursing students' confidence, communication skills and clinical judgment to obtain a patient's health history. Three cohort groups were chosen for the study for a total of 80 students. The researcher chose a previously validated instrument the Lasater Clinical Judgement Rubric (LCJR). The LCJR was chosen as it incorporates communication and reflection that lead to self-confidence which all lead to improved clinical judgement. The instrument was administered at three points during the course - baseline, after 12 hours of clinical experience with actual patients and 1 week after working with SPs presenting three scenarios during week nine. The data was analyzed using a statistics software program (SPSS). A one-way repeated analysis of variance conducted to evaluate the null hypothesis which stated there would be no change in the students' total score across the three points. Based on the results, the null hypothesis was rejected as the data analysis showed a significant increase in scores over time (Wilk's lambda = 0.67, $F_{(2, 76)}$ = 19.15, $p < .01$) indicating that interacting with the SPs increased the participants' level of confidence, communication skills and clinical judgement when performing a health history [18].

Qualitative Methods

Qualitative methods are typically used to describe why and how a phenomenon occurs. Qualitative research seeks to understand the motivations, attitudes or perceptions of study participants. Focus groups, or one-to-one interviews using a structured or semi structured interview guide, and participant observation can be used for data collection.

Example
Block et al. [19] were interested in the nature of relationship building, feedback and continuity among all stakeholders (students, faculty and SPs). Stakeholders participated in a longitudinal SP experience which mimicked clinical practice by having learners interact with the same SP persona "Larry" or "Linda" over time. In this program, students encountered these different "patients" six times during the first year of medical school. During the second year of medical school, fifteen students, eight faculty and ten SPs were invited to participate in separate focus groups. A guide for focus group questions was developed for each group. Researchers analyzed their data to look for themes within each group and across groups. They found similar and divergent perspectives among stakeholders. Importantly, they found the SP perspective to be important and recommended inclusion of the SP perspective in further studies [19].

Mixed Methods

Mixed methods combine quantitative and qualitative research methods. The mixed methods design is appropriate when the qualitative data complements the quantitative findings.

Example
Ignacio et al. [20] were interested in (1) comparing nursing students level of stress by measuring salivary alpha-amylase levels and level of performance by using a Rescuing a Patient in Deteriorating Situation (RAPIDS) rating tool managing an SP scenario vs a high fidelity mannequin and (2) to explore their perspectives of each approach in preparation for clinical placement. They designed a mixed methods study which included a randomized controlled trial (RCT) with a pre- and post-test design for the simulation and qualitative focus groups to understand nursing students' perceptions. The RCT enabled the researchers to determine which group had higher stress levels and higher performance scores using objective measures. The focus groups provided more subjective data by exploring students' insights on the two modalities to prepare them for clinical practice. They learned that there was no difference in stress or performance between the SP and mannequin. The focus groups suggested that the use of SPs cases was perceived as more valuable in preparing students for actual clinical practice [20].

Back to the question- what type of research suits you? The choice is not based on you but rather on the nature of the research. Table 11.3 provides the key Elements of Research.

Once a scholarly question has been framed and methodology chosen, it is necessary to have the project reviewed by an Institutional Review Board (IRB) or Ethics Committee. The IRB or Ethics Committee is a group of individuals charged with reviewing research proposals involving human subjects to protect them by ensuring compliance with regulations. The rights and safety of both the SPs and learners must be explicitly protected. Each institution has its own IRB or Ethics Committee. Becoming familiar with how your IRB or

Table 11.3 Elements of research

Elements	Qualitative	Quantitative
Underlying assumptions	Subjective	Objective
Purpose	Explore complex issues and interactions among humans	Explore outcomes from treatments and defined conditions
Goal of research	How? Why? Concerned with process by understanding, describing, discovering and interpreting social interaction.	What? How many? How often? Concerned with outcome by examining the relationship between defined variables in controlled settings, by testing a hypothesis, looking at cause and effect and making predictions
Research questions	Discovered and developed during study based on participants views	Generated by researcher at start of study to be proven or disproven
Sample size	Small, non-random, targeted individuals	Large, randomized groups
Design	Case studies Focus groups In depth one on one interviews Observation Study of documents, photos and other artifacts	Experimental controlling all variables & randomized Semi Experimental controlling some variables, not randomized
Data sources	Transcriptions of focus groups, interviews and field notes	Structured and validated Surveys Audits Test scores Rating tools
Analysis	Data gathered and analyzed at same time Transcribed text analyzed thematically by researcher	Data gathered first and analyzed later Data analyzed by statistics
Reporting results	Words, audio, visual Non generalizable	Numbers, statistical analysis, descriptive statistics Generalizable
Rigor	Processes to check for internal and external validity and reliability	Processes to check for internal and external validity and reliability
Examples	Case study Narrative Action research	Survey Experiments

Ethics Committee reviews proposals is key. Often times, researchers think that they do not need to use the IRB or Ethics Committee as they are doing medical/healthcare education research. Most of the times, these types of studies will be exempt, meaning you do not need to go through full review process. The IRB/Ethics Committee will need to make this determination. If you intend to submit your work to a conference or as a publication, it will not be accepted without that IRB/Ethics Committee determination.

Significant Results

This term broadly refers to "meaningful" results. Did what you set out to do with the SP activity achieve the goals? If your goals were clear and grounded in best practices, and the methods that you used were appropriate, what do your findings (analysis of your data) mean? If the outcomes obtained were unanticipated, it is important to think through the potential explanations. Results which are not aligned with predicted outcomes may open a whole new opportunity for scholarly inquiry.

Effective Presentation

Presentation of your innovation or research related to SP work allows others to interpret and adapt your work to advance the profession. This is the core tenet of scholarship – the dissemination of work that provides a foundation for building by others. Although publishing a manuscript describing an innovation or research activity allows broad and long-lasting dissemination of work, early presentations of ideas are also very important. If your work has been done using scholarly principles, prompt dissemination of findings may allow early adapters to build on your ideas. Targeting an appropriate audience is critical. Description of work with SPs may focus on specific techniques or logistics (most appropriate for an audience of SPEs) or may address a topic (e.g. High value care) that is of interest to graduate level program directors or health care administrators. Opportunities for presenting work in the latter category may be found in discipline specific meetings or healthcare education focused venues. Application of SP methodology outside of the healthcare realm may allow for dissemination at meetings with attendees previously unfamiliar with SPs. Many conferences are appropriate venues for scholarship highlighting SP methodology. In addition to ASPE, other simulation conferences including those sponsored by the Society for Simulation in Healthcare or INASCL welcome work focused on SPs. General medical education conferences such as the Group on Educational Affairs (GEA) regional conferences, or the American Association of Medial Colleges (AAMC), Association for Medical Education in Europe (AMEE), Society in Europe for Simulation Applied to Medicine (SESAM), and Asia Pacific Medical Education Conference (APMEC) also accept SP research. Additionally, discipline specific conferences with a section on education may welcome SP related work.

Table 11.4 Abstract sections

Abstract sections		
Section	Glassick's	Queries guiding the content
Background	Clear Goals Adequate preparation	What stimulated this study, What is known in the area? Why is this important? What is the specific research question framing your work?
Methods	Appropriate methods	What did you do? What methods were used? How did you collect data, and how did you analyze it?
Results	Results	What did you find?
Discussion	Reflective critique	What do your results mean? What are the strengths and limitations What are your next steps?

The opportunity to present your work at a conference often begins with a call for abstracts. Presentations may take a variety of forms including posters or oral abstracts, research papers, small group discussions or workshops. All of these, if peer reviewed, represent educational scholarship.

Abstract writing is a skill, and despite the short length of such submissions, requires practice. One of the best ways to become skilled at writing is to read published abstracts and/or to serve as a reviewer. Abstracts typically are constructed in four sections: background, methods, results, and discussion. You should answer specific questions within each section as seen in Table 11.4

Recognize the limitations imposed by the short length of an abstract. Be certain that you can include adequate information in each section so that peer reviewers can fairly assess your work. Most abstracts will contain a word limit. Be sure you are aware of that limit when submitting your work. If you exceed the limit it will not be reviewed.

Formats for Presenting Your Work

Local, national and international conferences offer many opportunities to present your research and or innovation. You could present your work in an oral presentation session or on a panel. You can offer a workshop. One of the easiest ways to start off is with a poster presentation. While you might think that you would rather do a presentation, panel or workshop, a poster presentation provides the opportunity to present your work and get feedback from a larger audience. Posters are usually left up for viewing for several days while a presentation or panel is offered only once. An added benefit is you can display your poster at your home institution after the conference.

A poster has two key elements, the content (the information you want to present) and the visual display. While the visual display is the feature that is likely to draw people to your presentation, the content of the poster must be con-

structed in a way to allow you to share your work in a concise format. Here are 7 practical suggestions for creating a good poster.

Organizing the Content of your Poster Presentation
What is the key message that you want to convey about your work? Be certain that the poster focuses on one or two key points
Write the content of the poster out in a word document first. Organize the content into sections (introduction, methods/process, results/outcomes, discussion, conclusion). The content of the poster should not exceed 800 word. Decide which information can be displayed as a table or graph to minimize text.
Be certain that the primary problem being addressed, or the research question, is clear and stands alone. This should appear at the end of the introduction or can be its own section on the poster.
Look carefully at the information you intend to include. Provide a concise background to highlight why the project/research was done but focus the content on what was done and what it means.
If you include references, link them in the text with the corresponding number superscripted
Use the title that corresponds to the title of your abstract. This is what will be posted in the program and attendees may specifically be looking for your work.
If you have done more work on the project since submitting the abstract and your participant numbers or time implementing the project has increased, it is okay to include updated data or outcomes in your results. However, if your conclusions have changed dramatically from the initial abstract, you should highlight that in the discussion.

Poster Presentation [21–23]

Usually there is time set aside at a conference for the attendees to view posters. This is a great time for you to present key points, network, and get feedback. Although conferences are a time for more casual dress, this is the time to dress professionally. Stand to the side of your poster to make it easy for attendees to read. Your body language should indicate that you are open for questions. Stand with open posture and make eye contact. Give them time to read and ask if they have any questions. Be prepared for some attendees to pause and walk away. Have business cards to hand out. Consider having 8 × 11 copies of the poster for people to take. Before the conference, practice the points you want to make so you hit the highlights and do not get distracted.

See Table 11.5 and Fig. 11.3 for details such as size/orientation, background, sections, font choice, font size, heading, text and charts, graphs and pictures when designing the Ideal Poster.

Additional Poster Tips

- posters can be printed on cloth, paper or laminated
- carry your poster with you during travel to guarantee safe arrival
- each conference will have its own requirement for the nature and size of the poster

Table 11.5 Poster Design Elements

Size/ Orientation	48 x 36/Landscape (Check with conference)
Background	Plain, white or cream, not distracting
Sections	3–4 columns, reads from right to left, align columns & leave white space
Font Choice	Serif fonts increase ease and speed of reading Times New Roman, Georgia, Palatino, Garamond
Font Size	Must able to read from 4–10 ft. away Title 80 pt., Authors 44 pt., Headings 36 pt., Text 24 pt., Captions 18 pt.
Headings	Identify heading for each section Use one primary color **Bold text** 1. Introduction 2. Methods 3. Results 4. Discussion
Text	For easy reading • Black text on white background • Use bullets for ease of reading • Line spacing between 1.25 and 1.5 • Clear and to the point • Check spelling
Charts, graphs & pictures	Use only if adds to the understanding or concept Remove unnecessary labels, or markers Highlight important information Picture/image resolution (svg., eps. wrmf. or emf.) that can scale to any size
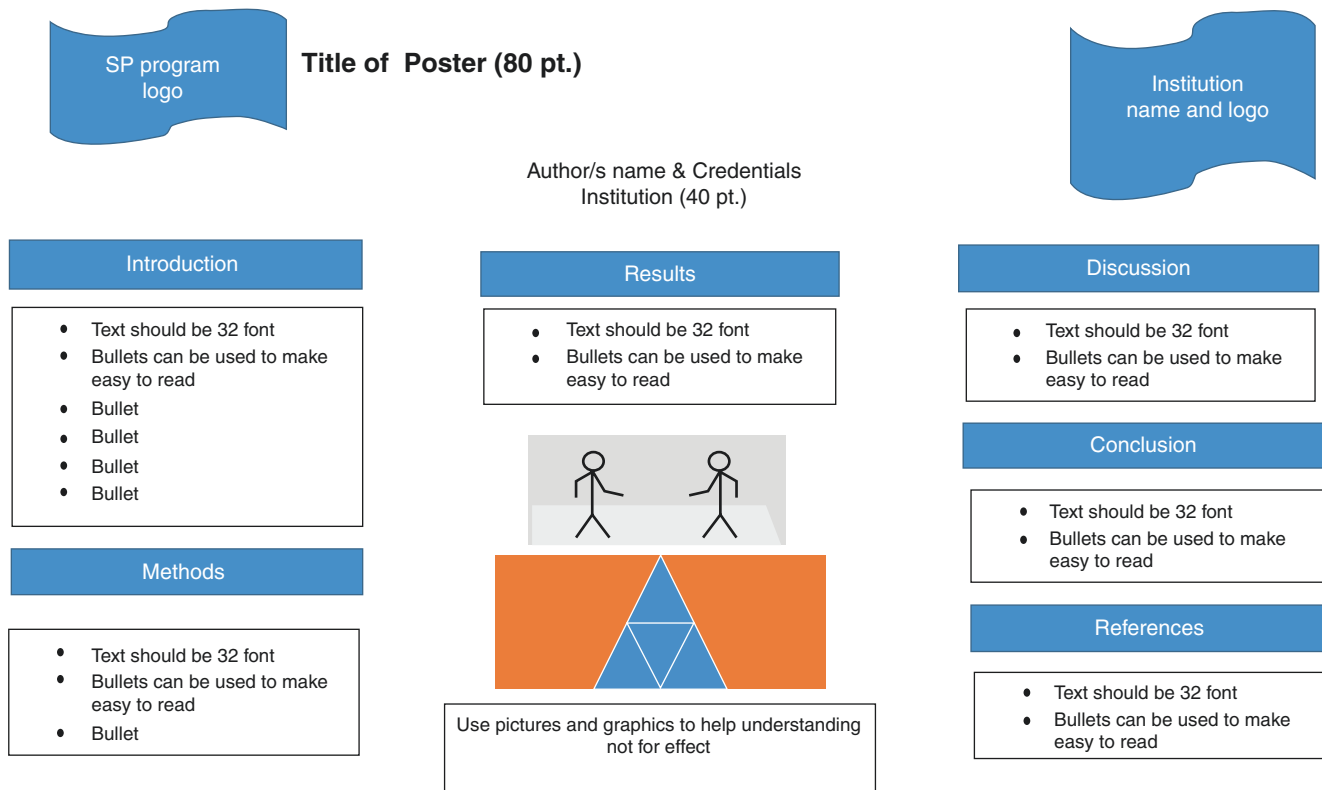
Fig. 11.3 Ideal poster design

- confirm the times to display your poster and the time to take it down
- find out if there is a set time you will be expected to present your poster

Publications

Publishing a full-length manuscript describing your work requires a significant investment of time. The acceptance rate for many journals is low (<20%), meaning that rewriting following a rejection may be needed. A unique opportunity to publish SP related materials is with MedEdPORTAL https://www.mededportal.org/. This peer reviewed, indexed journal will publish curricular innovations with SPs, including SP cases, as long as some outcome data are available.

Reflective Critique

The simulation literature has many articles discussing the importance of the feedback and debriefing of activities. The underlying principles also apply to personal scholarly work. It is essential that time for reflection on the work is allowed, and that any peer feedback on scholarship is taken into consideration. Reflection starts at the level of the activity and should consider each step of the process. Once work is disseminated, SPEs should be prepared to incorporate feedback for growth. If work is accepted, the feedback may help to guide development of a presentation. Rejection decisions, while momentarily disheartening, allow reflection on how the work might be framed, or in some cases, more clearly described. Reviewing the work of others can advance your ability to be critical of your own. Structuring high quality feedback (e.g. what about this do I like, and what areas are not strong?) will help you to apply that same process with your own writing. Educational scholarship starts with scholarly work. Framing work with careful consideration of each step provides the opportunity to ask questions which are grounded in prior scholarly work.

Advancing our profession depends on continuing curiosity about what we do and how we can enhance opportunities for our learners, our SPs, other stakeholders, and ourselves.

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