Abstract: The growing appreciation of the need to adopt evidence based approach to teaching and assessment has led to a demand for faculty who are well versed in best practices in education. Surgeons with interest and expertise in instruction, curriculum development, educational research and evaluation can have an important impact on the educational mission of a department of surgery. The increased fervor for accountability in education together with the challenges imposed by accreditation agencies and hospitals has made educational leadership responsibilities more time consuming and complex. In response to this, an increasing number of department chairs created Vice Chair for Education (VCE) positions to support clerkship and program directors and ensure the department’s education mission statement is fulfilled.

Key Words: Vice chair, surgical education, department of surgery, surgical leadership, career resource
The growing appreciation of the need to adopt evidence based approach to teaching and assessment has led to a demand for faculty who are well versed in best practices in education. Surgeons with interest and expertise in instruction, curriculum development, educational research and evaluation can have an important impact on the educational mission of a department of surgery. The increased fervor for accountability in education together with the challenges imposed by accreditation agencies and hospitals has made educational leadership responsibilities more time consuming and complex. In response to this, an increasing number of department chairs created Vice Chair for Education (VCE) positions to support clerkship and program directors and ensure the department’s education mission statement is fulfilled. Individuals who have made surgical education their career focus are being appointed to these positions. Unlike clerkship directors and program directors whose responsibilities are clearly established by their accreditation bodies, the VCE positions often come without job descriptions or clear career development pathways for those interested in such positions. The purpose of this paper is to describe the potential scope of VCE duties, as well as the qualifications faculty interested in VCE positions might pursue.
Vice Chair for Education Roles and Position Descriptions

The majority of surgeons who occupy the VCE role also hold clinical responsibilities. Therefore the time spent on educational activity will vary. In one study surgeons in the VCE role spent on average 29% of their time engaged in education leadership duties compared with 74% when PhD educators served in these roles. In that study position descriptions covered a broad range of administrative and educational activities as can be seen in Table 1. The majority of VCEs were full professors. In almost all departments the vice chair reports directly to the chair. Program directors, clerkship directors, skills lab or simulation center directors, educational research staff and nurse educators typically have a reporting relationship to the VCE in matters pertaining to surgical education.

Qualifications

A surgeon who aspires to the position of VCE needs to possess leadership skills as well as a record of excellence as an educator at an undergraduate, graduate and faculty level. In addition a VCE should have the knowledge necessary to develop performance and program evaluation systems, monitor educational resources, oversee faculty development, and mentor faculty or residents interested in pursuing educational research. Opportunities for achieving these skills will be discussed.

1. Master's Degree in Education

The current need for educational leaders in the health care field has led to the development of a number of degree programs in education aimed specifically at health care professionals (Table 2). Although some programs are classroom-based, the majority employ distance learning technology or distance learning plus abbreviated
classroom formats. The availability of “electives” within the curriculum offers flexibility for candidates to select courses or independent studies that fit their needs and interests. Most master degree program faculty encourage the use of the home institution as a laboratory for the application of practical educational problems. This format allows participants to pursue their degrees while maintaining their full time faculty status since most programs allow participants to complete courses on campus, on line or, both. These degree programs provide their learners with a broad and rigorous foundation in the theory and practice of education.

2. Continuing Education Courses Relevant to Education

American College of Surgeons - Surgeons as Educators Course

This intensive full-time, six–day course, organized annually by the American College of Surgeons, has been offered for 14 years. The course emphasizes the techniques necessary to develop an effective learning environment for medical students, surgical residents, colleagues, and others in the health profession. The sessions are designed to equip attendees with the knowledge and skills needed to teach, develop curriculum and evaluation systems, and serve as an effective education administrator and leader. The maximum class size of 32 allows for high interactivity among learners and faculty.

The American College of Surgeons - Surgeons as Leaders Course

This three day course is designed for surgeons who currently serve in a leadership position, or aspire to such a position, and who seek to enhance their leadership skills. The emphasis is on leadership in contrast to management and includes presentations on the attributes of leaders and principles of leadership as well
as sessions on aligning values and leading change, and team building. Participants are encouraged to present the faculty with their leadership challenges to ensure the course addresses the specific learning needs of the attendees.

**Association for Surgical Education - Surgical Education Research Fellowship**

This is a one year, home-site fellowship designed to equip surgical faculty or residents with the background and guided experiences needed to plan, implement and report educational research studies. Each fellow is matched with an advisor who serves as a mentor on their particular project. Participants obtain a certificate upon completion and are required to attend the annual meeting of the Association for Surgical Education (ASE) and the American College Annual Clinical Congress while actively enrolled in the program.

**3. Professional Organizations**

Two organizations that are specifically devoted to surgical education are ASE and the Association of Program Directors in Surgery. Both hold a combined annual meeting during surgical education week. This meeting provides an excellent opportunity not only for learning about advances in surgical education but also for networking with like minded individuals and finding a mentor in surgical education. A number of workshops on instruction, curriculum development and assessment are offered during Surgical Education Week. Advance registration is not necessary for these workshops and there is no additional charge to meeting registrants. The Association of American Medical Schools [AAMC] Annual Meeting has a broader focus and includes workshops on undergraduate, graduate and continuing medical education. In addition to the Annual meeting AAMC runs a number of career development programs during the year.
4. Journals

As with any other area of interest, surgeons who are making surgical education their career focus should keep up to date with the research in their field. Journals that focus specifically on education include the Journal for Surgical Education\(^\text{10}\), Academic Medicine\(^\text{11}\), and Medical Teacher\(^\text{12}\). In addition, many of the surgical specialty journals include a section on educational topics; for example the American Journal of Surgery\(^\text{13}\) and Archives of Surgery\(^\text{14}\).

**Acquiring a National Reputation as an Educator**

There are many organizations that allow surgical educators to improve their visibility at a national level (Table 3). These provide networking opportunities and serve as a resource for identifying mentors with a national and/or international reputation in education. These mentors can provide opportunities to form professional relationships, assist in developing collaborative research or a joint teaching curriculum. In addition mentors could recommend workshops that will help to build skills in teaching, curriculum planning and grant writing. Within their home institution, surgical educators should not feel restricted to working within their primary department. In fact collaboration across departmental borders is highly regarded by Promotion and Tenure Committees.

Educators must ensure that they build and manage a portfolio that describes and documents professional goals and activities, and evidence of educational effectiveness as many educational activities are not captured by the traditional Curriculum Vitae\(^\text{15}\). In 2006 a Consensus Conference on Educational Scholarship was convened by the AAMC Group on Education Affairs (GEA) to outline a set of documentation standards for use by educators and academic promotion committees\(^\text{16}\). The authors reiterate the
need for evidence of quantity and quality of education activities. They defined a scholarly approach as one that demonstrates evidence of drawing from and building on the work of others, and contributing work through public display, peer review and dissemination; both involve engagement with the community of educators. One framework for organizing a Teaching Portfolio includes a personal statement, documentation of effort in teaching activity, curriculum development, mentorship, educational leadership and learner assessment. For each educational activity it is important to quantify the activity and provide some outcome measure of educational effectiveness. These outcome measures should be included in an Appendix. When including evaluations it is essential to provide a comparison with peers. Documentation of patient care related teaching should include a description of how this teaching activity took place and the incremental time involved in teaching in a patient care setting. The extent to which scholarship in education will be considered in promotion and tenure decisions is institution dependent, but more medical schools are creating promotion tracks for educators to promote and support educational scholarship.

**Time Management**

Surgical educators are expected to teach students, residents and faculty, design curricula, and conduct research, while being clinically productive. VCEs should expect a lower clinical profit margin with increased educational responsibilities and should negotiate an increase in base salary or additional resources before accepting the position. Protected time must be negotiated with the chair for educational activity. The resources necessary for the position will vary from institution to institution, depending on what is already in place, and can always be shared across departments. As with all
surgeons, surgical educators will have many demands on their time. Therefore it is important to frequently assess goals, opportunities, and resources and develop an appropriate timeline for each goal. It is not unusual to find that career plans are impeded by lack of funding, resources, time constraints, or other restrictions. If the problem is lack of funds it is worthwhile exploring the option of grants from professional specialty organizations and industry (Table 3). Many Medical Schools now have an “Academy which funds educational research”\(^{18}\). If the difficulty is a lack of infrastructure, it is worth considering sharing resources and collaborating on a research or curricular innovation. If the problem is time constraints then it is necessary to readjust priorities and offload the distracting tasks that are not helpful to a career.

**Finding a Position**

The majority of VCEs positions are filled from within the department but as these positions grow in popularity, department chairs are advertising for outside candidates through websites administered by the Association of Program Directors in Surgery\(^8\), the AAMC Career Connect\(^9\), the Society of Directors of Research in Medical Education\(^{19}\), or the AAMC’s regional groups on medical education. The paper by Dunn on job negotiation is a useful resource to read before opening the conversation with a department chair\(^{20}\).

**Summary**

Surgical education administration, implementation, and evaluation are growing in sophistication along with accountability. There is a movement by surgery department chairs to create vice chair for education positions to oversee program and clerkship directors’ needs and promote a culture of surgical education scholarship and research.
A successful VCE needs to have a position description with clear expectations. The individual in this role requires a sound background in education principles and practice which can be acquired through advanced degrees and/or continuing education courses and resources relevant to education. The aim would be for a VCE to grow their skill sets by networking with surgical education mentors and experts, and eventually earning a national reputation for their contributions to the field. Individuals in VCE positions need to negotiate with their chair to ensure time is available to achieve the expectations and goals set forth. The chair and VCE need to have a mutual understanding of the scope of duties and the effect on the VCE’s clinical productivity as time will be required to effectively carry out their duties. Lastly, chairs may recruit faculty within their department to be the VCE, but advertisements are also posted on websites when chairs do not have qualified internal candidates. It is not uncommon for departments of surgery to designate individuals to serve as vice chairs for research to ensure the research enterprise is robust and supported. Movements are afloat to accomplish the same for education.

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<th>Table 1 Job Description</th>
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<td><strong>This allows for 25% clinical responsibility</strong></td>
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**Administration (25%)**

A. Serve as member of Department of Surgery Surgical Council

B. Advise the Director of Clinical Skills Laboratory on management and development of curriculum training.
C. Develop and maintain information systems for reporting performance and educational program evaluation data for the purposes of planning and assessment.

D. Oversee administrative aspects of recruitment of educational staff not assigned to a specific division to include nurse instructor, administrative clerk, and surgical educational fellowship positions.

E. Serve as a liaison to the Department of Medical Education.

F. Identify faculty/residents interested in educational development and support their interest by mentoring and guiding their research efforts.

G. Work with the Surgery Education Council, Clerkship and Residency Program Director(s) to oversee the development and maintenance of the educational programs.

Teaching (25%)

A. Assess needs, define priorities, and propose educational goals on short and long range basis as they relate to the Department of Surgery

B. Design, organize, and execute programs of faculty development at local and national levels, including training residents as teachers.

C. Assist faculty with instructional design and/or enhancement.

D. Participate in the review of faculty for promotion and/or tenure

E. Mentor faculty with performance difficulties in collaboration with the Division and Department Chair(s)

F. Prepare written or oral reports needed for planning, development, and/or evaluation of educational programs.

G. Design, appraise, and oversee the administration, development, and summarization of clerkship performance measures.

H. Teach graduate courses as needed for Surgical Education Fellows.

I. Assist in the teaching responsibilities of the Division of General Surgery on the undergraduate and graduate levels.

J. Participate in continuing medical education programs in transplantation and general surgery.
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<th>Research (25%)</th>
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<td>A. Coordinate, design and implement educational research projects as related to surgical and medical education.</td>
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<td>B. Publish and present research papers at the regional, national, and international levels.</td>
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<td>C. Apply for grants to support research efforts.</td>
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<td>D. Mentor faculty and fellows interested in planning and pursuing educational research and/or research on improvement of surgical practice and outcomes.</td>
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<td>E. Encourage residents and medical students to conduct research and publish the results.</td>
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<td>F. Chair the Surgical Education Committee</td>
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<td>G. Supervise and conduct performance evaluations on surgical education research assistants and staff.</td>
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<td>Masters of Science Education University of Southern California, Rossier School of Education</td>
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<td>Master of Medical Education University of Toronto, Ontario Institute of Studies in Education</td>
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<td>Masters in Human Resource Development with an emphasis in Health Profession Education University of Illinois at Urbana Champaign/Springfield</td>
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