

Defining the Components and Evidence of Educational Scholarship

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Background

- In the 1980's and 90's, teaching was expected as part of academic citizenship but was not sufficient for academic promotion
- Forces came together to change the face of teaching and education in academic medical centers:
 - Increasing emphasis on research mission
 - Dependence on clinical revenue for operations budgets
- Created a “crisis of mission” related to medical school faculty roles and rewards

Background

- Perspective began to change after the publication of the Carnegie Foundation for the Advancement of Teaching published the report: *Scholarship Reconsidered: Priorities of the Professoriate*
- Provided a framework to challenge the assumptions that “everyone teaches”
- Scholarship enriched by the publication of and additional monograph entitled *Scholarship Assessed*

Background

- Reports reframed and expanded the discussion regarding roles, expectations, recognition, and the advancement of educators
- Introduced the concept of teaching as a scholarly work that can result in academic promotion

Educational Scholarship

What kinds of things are necessary ingredients for educational activities to be considered scholarly work?

Background

- Common criteria for scholarship:
 - Clear goals
 - Adequate preparation
 - Appropriate methods
 - Significant results
 - Effective presentation
 - Reflective critique

Background

- School leaders began to recognize and respond to the crisis of mission and the new ideas of the scholarship of education
- Whitcomb advanced the idea that “those members of the faculty who are most committed to, and involved in, the education of medical students must be supported and rewarded both professionally and financially”

Background

- Whitcomb further asserted that “faculty appointment, promotion, and tenure policies must reflect the changing roles and responsibilities of medical school faculty”
- Evidence in support of these changes include:
 - Education as a viable career track
 - The use of educational portfolios for academic promotion
 - Ongoing revision of promotions criteria
 - Proliferation of educational academies and societies

Background

- AAMC Group on Educational Affairs has been a staunch supporter of this view
- Developed criteria for scholarship in education
- Defined scholarship's core elements and the associated resources and infrastructure to support educators as scholars
- Began to document the increasing use of educational portfolios: 5 schools in 1990 to 76 schools in 2003

Background

- Despite the emergence of a common set of educator activity categories, the evidence presented in portfolios was highly variable
- Variability underscored the need to articulate a set of common standards for selecting, presenting, and evaluating the evidence of educational contributions for academic promotion
- AAMC released a summary report earlier this year which outlines these standards

Objectives

- Delineate the contents of five literature based educator activity categories
- Present standards for documenting
 - Quantity
 - Quality
 - Scholarly engagement

Conceptual Framework

- Evidence of educational excellence must document the following:
 - Quantity: descriptive information regarding the types and frequencies of educational activities and roles
 - Quality: Evidence that activities achieve excellence using comparative measures when available
 - Engagement: with the broader educational community

Engagement

- Engagement is documented with evidence that
 - the educator's work is informed by what is known in the field (a scholarly approach)
 - How, over time, the educator has contributed to the knowledge in the field (educational scholarship)
- Breadth of engagement may vary: local, regional, national, or international

Scholarly Approach

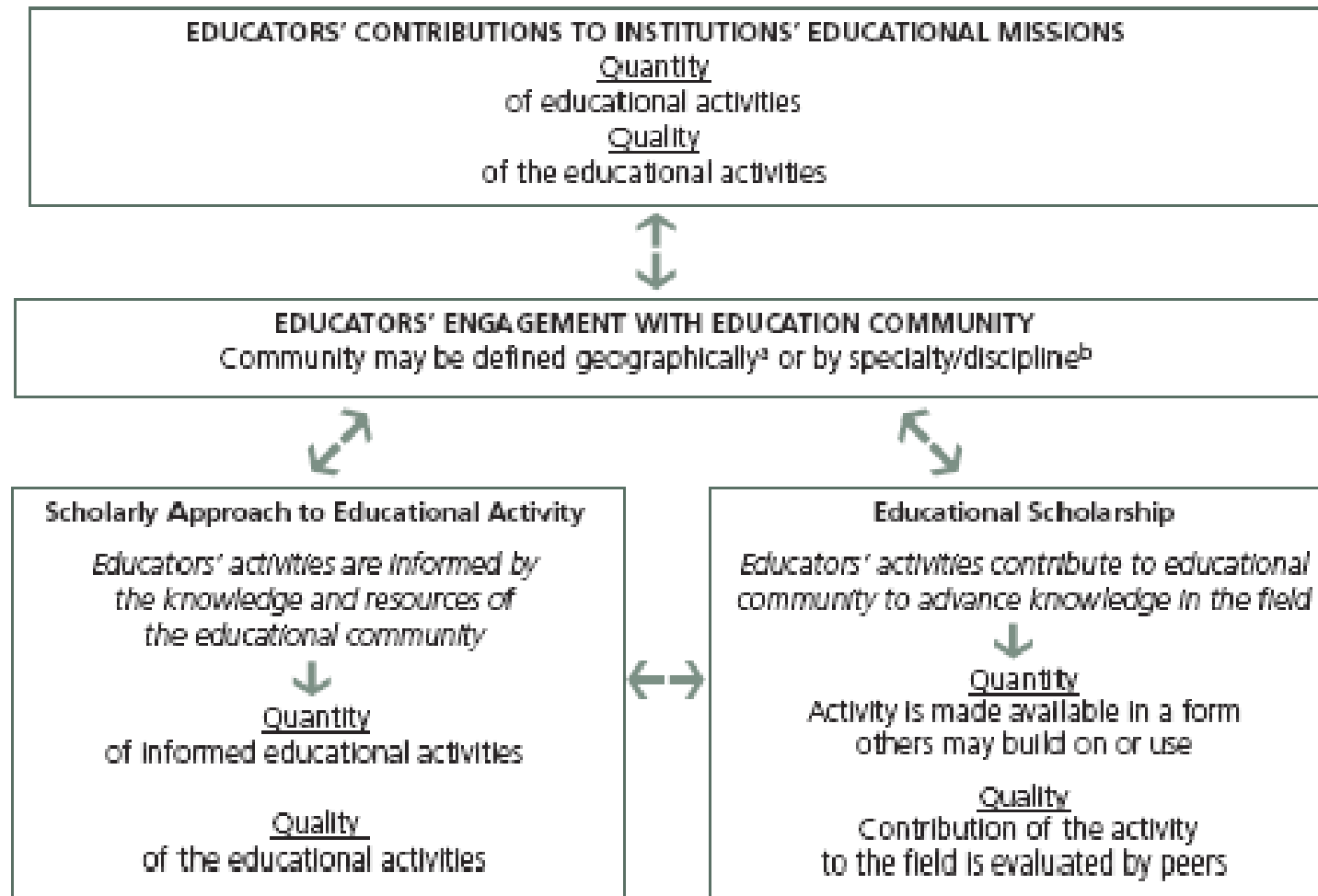
- Faculty take a scholarly approach when they:
 - Systematically design, implement, assess and redesign an educational activity drawing *from the literature* and *best practices* in the field
 - Documentation describes how the activity was informed by the literature an/or best practices

Educational Scholarship

- Faculty engage in educational scholarship by:
 - Drawing upon resources and best practices in the field *and by contributing resources to it*
 - Documentation demonstrates that an educational activity product is publicly available to the educational community in a way that others may build upon
 - May be available at the local, regional, national or international level
 - Once public, peers can assess the value to the community by applying accepted criteria

Fig. 1.

**Documentation Frame for Educators' Academic Advancement
Based on Contributions to the Institution and Engagement with the Education Community**



^a Local (department/division, university, community), regional, national/international

^b Examples include medicine, pediatrics, surgery, biotechnology, genetics, anatomy, pathology, dental evaluation, and instructional technology

Educational Activities

What kinds of activities engaged in by educators represent educational contributions for academic promotion?

Educator Activity Categories

- Five categories have emerged as common formats in presenting educational contributions for academic promotion
 - Teaching
 - Curriculum Development
 - Mentoring/advising
 - Educational administration/leadership
 - Learner assessment
- Each category will be defined and types of evidence to document quantity, quality, and engagement will be discussed

Teaching: Definition

- Any activity that fosters learning
- Direct teaching
 - Lectures, workshops, small group facilitation
 - Role modeling in any setting (ie ward attending)
 - Precepting
 - Online courses
 - Formative feedback
 - Summative feedback such as grades (can also be included in the learner assessment category)

Teaching: Definition

- Instructional materials are included in the teaching category when they are developed to enhance instructors' own presentations
 - Handouts, web based instructions
- Development of a longitudinal set of educational activities would fall into the curriculum development category

Teaching: Quantity

- Frequency of teaching
- Duration of teaching
- Documentation of one's role
- Include a list of instructional materials developed with a brief description of purpose, format, length
- Consider use of tables and figures rather than narrative descriptions

Teaching: Quality

- Whenever possible, use multiple sources and types of data
- Include comparative data of peer-group performance
- Summarize narrative comments using qualitative analysis methods

Teaching: Quality

- Data sources might include:
 - Learner evaluations of instructor's teaching using standardized forms with open-ended comments
 - Peer evaluation of teaching using a standardized format and process if available
 - List of teaching awards and honors accompanied by descriptions of their selection process and criteria

Teaching: Quality

- Evidence of learning is a strong indicator of excellence when available
 - Local learner data: pre and post teaching assessment of learner performance; self reported learning outcomes; ratings of educational objective achievement; analysis of narrative data such as a learning portfolio
 - Data on standardized national measures: inservice examinations, NBME Subject tests, Licensing examinations

Teaching: Engagement

- A scholarly approach requires that instructors apply the principles and finding from education literature (eg competency based education) to their teaching
- Can be documented by:
 - Descriptions of how approaches were informed by the literature or “best practices”
 - Comparative analysis of how teachers’ own strategies with best practices, documenting strengths and weaknesses
 - Instructors reflections on their own teaching or on critiques by others, and the effect of those reflections on subsequent teaching activities

Teaching: Engagement

- Requires that educators make products publicly available for peer review so their contributions to the educational community can be evaluated
- Public presentation can be internal (through a division/department/school), regional or national
- Through forums such as the AAMC MedEdPORTAL

Teaching: Engagement

- Documentation of these contributions may include:
 - Inclusion of the product in a peer reviewed venue or repository
 - Evaluations from a conference presentation, teaching awards
 - Data demonstrating adoption by other faculty
 - Descriptions of how others have built on or adapted the product for their own use

Curriculum: Definition

- Defined as a longitudinal set—that is more than one teaching session or presentation—of designed educational activities
- Must include evaluation
- May occur at any level: medical student, resident, graduate student, continuing medical education

Curriculum: Definition

- To include an activity, in the curriculum category, educators must answer four questions:
 - What is the educational purpose (goals and objectives)?
 - Which learning experiences are most useful in achieving those purposes?
 - How are those learning experiences organized and longitudinally sequenced?
 - How is the curriculum's effectiveness evaluated?

Curriculum: Quantity

- For each curricular endeavor, documentation should include:
 - A cogent description of its purpose,
 - Intended audience
 - Duration and design
 - Evaluation
- If co-authored, educator's role, content contributed, and expertise provided should be documented

Curriculum: Quality

- Documentation of outcomes and quality should include:
 - Learner reactions and ratings
 - Outcomes including the impact on learning (eg course examinations, NBME subject scores, in-service examinations, etc).
 - Graphic displays of improvement over time (eg relation to previous curriculum offerings)

Curriculum: Engagement

- Demonstration that the curricular design was informed by the literature and best practices
- Note how the curriculum was influenced by relevant literature or other educators
- Positive and negative results should be presented to advance educational knowledge and build on the authors' experiences

Curriculum: Engagement

- Scholarship requires make a curriculum public in a form that others can use
- Course syllabi, learner assessment tools, instructor guides
- Includes review by local experts, the institution's curriculum committee, or accreditation reviews
- Presentations at meetings
- Peer reviewed repository
- List of institutions where the curriculum has been adopted/invitations for curriculum consultation
- Number of citations in other instructors' curriculum

Advising and Mentoring: Definition

- Educators frequently serve in these roles in the professional development of learners and colleagues
- This can have a profound effect on advisees' careers, and, in turn, on the profession
- Advising is a more limited relationship with the advisor serving as a guide
- Mentoring implies a sustained, committed relationship in which both parties obtain reciprocal benefits

Advising and Mentoring: Quantity

- Number of learners and colleagues mentored or advised
- Positions or status of learners when mentored
- Estimate of time invested in each relationship (eg duration, frequency of contact, total hours)

Advising and Mentoring: Quality

- Effectiveness is demonstrated through advisees' goal achievement
- Documented by:
 - Evaluations from advisees using standardized forms
 - Listing of advisees' significant accomplishments including publications and presentations, recognitions, and rewards
 - Narrative comments from advisees

Advising and Mentoring: Engagement

- Scholarly engagement can be demonstrated by:
 - Participating in professional development activities to enhance skills in mentoring and advising
 - Adopting effective mentoring strategies with documented links to the literature
 - Writing an institutional guide informed by the literature and best practices
 - Designing an effective program guided by current evidence
 - Leading initiatives that improve institutional mentoring and advising

Advising and Mentoring: Engagement

- Scholarship may be demonstrated by:
 - Receiving invitations to critically appraise mentoring programs, providing documentation of the results, and the appraisal's impact
 - Posing and answering investigational questions about mentoring/advising
 - Securing program development funding through a peer-reviewed process
 - Conducting skill enhancement sessions at professional meetings
 - Publishing peer-reviewed materials
 - Serving as a mentoring consultant, receiving mentoring rewards

Educational Leadership and Administration: Definition

- Exceptional leaders achieve results through others, transforming organizations through vigorous pursuit of excellence
- Key features that should be documented for consideration for promotion include:
 - Active and continuous pursuit of excellence
 - Ongoing evaluation
 - Dissemination of results
 - Maximizing of resources

Leadership and Administration: Quantity

- Documentation should include:
 - Nature of the leadership projects
 - Duration and quantity
 - Roles that were played by the leader

Leadership and Administration: Quality

- Documentation should include:
 - Leadership role and project dates
 - Context where the change occurred, as well as the process including problems identified, goals established, and actions taken
 - Evaluation including delineation of outcomes
 - Financial and human resources deployed to achieve results

Leadership and Administration: Engagement

- Scholarly Approach:
 - Changes based on literature and best practices
 - Designing and evaluating improvements based on local feedback, prior research, external peer review
 - Demonstrating attainment of benchmarks associated with successful change (improved learner evaluation, AAMC graduation questionnaire rating, etc)
 - Documenting ongoing quality improvement
 - 360 degree evaluations

Leadership and Administration: Engagement

- Educational Scholarship:
 - List of invited and peer reviewed presentations at local, regional, national meetings
 - Quantity and quality of publications
 - Awards received with annotations regarding selection criteria and process
 - List of institutions that have adopted an innovation
 - List of resources obtained as evidence that others have judged the innovation as worthy of investment

Learner Assessment: Definition

- Defined as all activities associated with measuring learners' knowledge, skills, and attitudes
- Must include one of four assessment activities:
 - Development: identifying and creating assessment processes and tools
 - Implementation: collecting data using processes and tools
 - Analysis: comparing data with correct answer key or performance standards
 - Synthesis and presentation: Interpreting and reporting data to learners, faculty, and curriculum leaders

Learner Assessment: Quantity

- Document an assessment activity's size and scope by beginning with a brief description of the project'
- Should include information about faculty's role in each assessment component along with the size and nature of the learner population being assessed

Learner Assessment: Quality and Engagement

- Documentation should provide evidence that the evaluation meets established reliability and validity standards
- Data should be in both quantitative and qualitative forms
- When learner assessments are used in high stakes decision the assessment must be well grounded in the existing knowledge base drawn from the educational measurement field

Current Status of Portfolios

- Two phase study *Acad Med* 2004; 79(8): 783-790
- Diffusion of teaching portfolios in 76 medical schools
- Second phase:
 - All 16 schools continued to use a portfolio based evaluation system

■ Review Sample Portfolios

Conclusions

- Educational scholarship is increasingly being recognized and defined
- Traditional CVs don't really allow full range of expression for educators to demonstrate their scholarship
- Increasingly, educational portfolios are becoming recognized as an important tool to document success as an educator

Primary Reference

- *Advancing Educators and Education: Defining the Components and Evidence of Educational Scholarship*; summary report and findings from the AAMC Group on Educational Affairs Consensus Conference on Educational Scholarship. 2007