

Examples of and readings about different categories of educational resources are provided at the end of this document.





- 7. If the submission is approved for publication after the review process has been completed, the author(s) will be notified via e-mail. At this time, the author(s) will be sent an ACS Project Agreement form and an ACS Financial Disclosure form to review, sign, date, and submit to <a href="mailto:thecuttingedge@facs.org">thecuttingedge@facs.org</a>.
- 8. The corresponding author will be e-mailed a final proof of the Educational Summary Report and Educational Resource for their approval. Special attention



of another work and the Educational Summary Report must present an original, substantive perspective on the resource. If authors are submitting material that is related to a previously published work, no written material from previously published content may appear in their submission. Acceptance of any submission related to a previously published work will be decided at the discretion of the editor.

Authorship criteria follows the guidance of the Consensus Statement on Surgery Journals Authorship-2006, which states that all authors should have made substantial contributions to all three of the following: (1) conception and design, (2) participate in drafting the article (educational summary report and/or educational resource) or revising it critically for important intellectual content, (3) give final approval of the version to be submitted and any revised version to be published.<sup>1</sup>

Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. Allowing one's name to appear as an author without having contributed significantly or adding the name of an individual who has not contributed or who has not agreed to the work in its current form is considered a breach of appropriate authorship.

If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; Uniform Requirements for manuscripts submitted to Biomedical journals. Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

Individuals have a right to privacy that should not be infringed without informed consent. Identifying information, including learners' or patients' names, initials, or hospital numbers, will not be published in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the individual (or guardian) gives written informed consent for publication.

<sup>&</sup>lt;sup>1</sup> Surgical Journal Editors Group. Consensus statement on surgery journal authorship--2006. Ann Surg. 2006;243(6):713-714. doi:10.1097/00000658-200606000-00001

serve as a template for the creation of effective training (curriculum) for other complex procedures.



- o A national survey of General Surgery Program Directors to gather feedback on a proposed faculty development program for the purposes of making enhancements
- o A review and analysis of data on patient outcomes following a specific procedure to develop a skills training course for relevant surgeons with the goal of improving patient care outcomes

Knowles, Malcolm S. The Modern Practice of Adult Education; Andragogy versus Pedagogy." (1970).

Part Two of this text highlights the importance of assessing needs and interests of adult learners before developing educational programs.

Gupta, Kavita. A practical guide to needs assessment. John Wiley & Sons, 2011.

Lindeman, Brenessa M., Pamela A. Lipsett, Adnan Alseidi, and Anne O. Lidor. "Medical student subinternships in surgery: characterization and needs assessment." The American Journal of Surgery 205, no. 2 (2013): 175-181.

Feedback was collected from relevant stakeholders to understand the experiences and needs of students completing sub-internships in surgery. Findings inform a curriculum for surgical





- o High Stakes: To determine if they "pass" based on a cut-off score.
- o Low Stakes: To identify content areas where additional learning is needed.
- o A skills assessment of all incoming surgery residents to identify remediation needed.
- o A learner self-assessment from retrospective video playback to enhance learning of a specific technical skill, in the absence or in combination with faculty/trainer assessment and feedback
- o An assessment of nontechnical skills (e.g., communication, teamwork, professionalism) to be completed by numerous individuals (e.g., residency program coordinator, nurses, peers) as part of a 360° evaluation of all department



Whittaker, George, Hamid Abboudi, Muhammed Shamim Khan, Prokar Dasgupta, and Kamran Ahmed. Teamwork assessment tools in modern surgical practice: a systematic review. Surgery research and practice 2015 (2015).

Deficiencies in teamwork skills have been shown to contribute to the occurrence of adverse events during surgery. There are a number of teamwork assessment tools that have been used to evaluate trainee nontechnical performance. This paper aims to provide an overview





This paper summarizes the work of 8 research teams using Artificial Intelligence (AI) for surgical video analysis. Operative video has potential to enable instant replays of critical surgery decisions for training and quality review. Results presented support the utility of wearable technology to facilitate efficient and accurate video analysis and segmentation.

