1. Gathering (20 items, 16%)
   A. Determine purpose of document
   B. Identify context for document
   C. Identify target audience
      1. Assess needs
      2. Identify knowledge gaps
   D. Select appropriate output type (publications, regulatory documents, CME materials, patient education)
   E. Identify appropriate outlet (target journal, other print media, Web)
      1. Conduct a literature search (PubMed/MEDLINE)
      2. Elicit information from collaborators and stakeholders (interview researchers, statisticians, clinicians, patients, regulators, thought leaders)
      3. Identify other relevant sources (Web sites, databases, data outputs, clinical guidelines)
      4. Identify relevant writing guidelines, instructions, and ethical standards (journal instructions for authors, grant application instructions, regulatory requirements)
      5. Identify relevant document models and templates
      6. Identify necessary forms and supporting materials (permission to reprint, disclosures, copyright)

2. Evaluating (24 items, 19%)
   A. Evaluate collected information with regard to:
      1. Content (quality and relevance, level of evidence)
      2. Audience (appropriate and relevant to needs)
      3. Context (credibility of sources and suitability for purpose)
   B. Perform fact or data check
   C. Identify inconsistencies in data or other content presented
   D. Conduct critical review of a draft
      1. Assess quality of writing (clarity, readability, usability, logic, organization, consistency)
      2. Provide constructive criticism
         a. Provide options for solutions
         b. Craft appropriate queries
      3. Evaluate representation and description of data
      4. Recognize ethical considerations with respect to self and others (conflict of interest, disclosure, authorship, plagiarism, duplicate publications)
   E. Evaluate for completeness, fair balance, and absence of bias
   F. Determine appropriate level(s) of editing (proofreading, microediting, macroediting)
   G. Implement best approach to resolve issues (author disagreements, scope change, unexpected delays)
3. Organizing (24 items, 19%)
   A. Determine organization of document (IMRAD)
   B. Identify and prioritize key elements of content
   C. Structure content to communicate message
   D. Develop an outline
   E. Apply templates and guidelines to documents (CONSORT, ICMJE, FDA, ICH, PRISMA, ACCME, HIPAA, health literacy)
   F. Determine structure of tables and figures to best communicate data
   G. Determine which references to cite in document
   H. Comprehend processes of developing and disseminating documents (news releases, publications, grant and regulatory submissions)
   I. Design project work plan
      1. Determine deliverables
      2. Develop timeline
      3. Recognize roles, responsibilities, and processes
   J. Track progress and status of project
   K. Determine process for tracking changes and version control
   L. Recognize and apply appropriate software and technology to use in developing the document

4. Interpreting (24 items, 19%)
   A. Comprehend relevant medical and scientific content
      1. Understand terminology
      2. Understand concepts (cell and molecular level, organism level, and population level)
      3. Understand study design (clinical trial, case-control, longitudinal study)
      4. Understand statistical concepts (P value, confidence interval, power)
   B. Interpret clinical and numerical data
   C. Derive key message(s)
   D. Determine inferences, implications, or clinical relevance
   E. Synthesize and integrate information
   F. Revise or repurpose existing content
   G. Comprehend review processes (peer review, grant review, regulatory review)
   H. Respond to reviewers' comments
      1. Interpret feedback from reviewers
      2. Determine appropriate responses
5. Presenting (33 items, 27%)
   A. Present the message logically and coherently (tell the story)
   B. Retain the intended meaning of source materials or original document
   C. Communicate scientific content appropriately
   D. Communicate statistical content appropriately
   E. Develop clear, concise prose
   F. Structure an abstract (for presentation or publication) or executive summary
   G. Tailor prose to the audience
   H. Build logical and science-based arguments
   I. Apply proper mechanics
      1. Apply rules of grammar, spelling, and punctuation
      2. Apply proper word usage (general and medical), correct nomenclature, and nondiscriminatory language
      3. Construct effective sentences
      4. Construct effective paragraphs (topic sentences, transitions, repetition of key terms)
      5. Apply techniques for cohesion between paragraphs and sections
   J. Apply principles of proofreading
   K. Apply basic principles of design and layout (document, slide, poster, Web)
   L. Apply principles of visual presentation of data (tables, figures)
   M. Write document to adhere to standardized formats, guidelines, instructions, and ethical standards
   N. Maintain confidentiality of information (patient, proprietary)