

HOW TO PREPARE AN ABSTRACT FOR COMPLETED RESEARCH

An abstract must be prepared for each paper to be presented at the Annual Meeting. An abstract is a concise summary of the educational, scientific, engineering, or technological research contents of the paper, and not merely a general description of what the paper is about. Tell what the specific facts are, not what they are going to be when you talk. **Avoid personal pronouns.** Quality abstracts are **highly structured** and contain all the following elements: (1) background or introduction including goals, objectives, purpose, problem and hypothesis, (2) methods and materials, (3) results, data or observations, and (4) discussion or conclusion(s). **Phrases like "will discuss, will review, will talk about, or will present" are unacceptable in an abstract.** All important facts should be stated with brevity, but not such sparing use of words as to leave ambiguity. Abstracts should be 250 words or fewer. Tables and graphs should not be included. New techniques or new apparatus and their functions should be mentioned. New constants, critical data or formulae should be included. Names of new species should not be listed in the abstract but use full scientific names for all organisms. **Use the term "significant" only if you state the statistical test(s) used.** Always define the sample(s), population or trials (N=?). **NEVER use the phrase "Results show" without first stating the results.** The value of abstracts is real and considerable, not only for those in attendance, but also for others unable to attend. The first author of multi-authored abstracts must obtain permission from all authors to submit the content of the abstract.

HOW TO PREPARE A COLLEGE UNDERGRADUATE RESEARCH-IN-PROGRESS SUMMARY

In order to accelerate the entry of college undergraduate students into the professional world of education, science, engineering, technology, or their applications, The Ohio Academy of Science has adopted the following policy and procedures to accept and publish summaries of college undergraduate research-in-progress in lieu of abstracts for the Annual Meeting. Papers, based on the student's research, may be presented in poster format. Undergraduates whose research is unfinished by the abstract submission deadline may submit an Undergraduate Research-in-Progress Summary in lieu of an abstract. This summary is a statement following the general typing and submission instructions for an abstract. **Avoid personal pronouns.** The summary shall contain the following elements in this order: (1) background or introduction including goals, objectives, purpose, problem and hypothesis, (2) methods and materials, and (3) if available, initial observations. **Phrases like "will discuss, will review, will talk about, or will present" are unacceptable in a summary.** All important facts should be stated with brevity, but not such sparing use of words as to leave ambiguity. Summaries should be 250 words or fewer. Tables and graphs should not be included. New techniques or new apparatus and their functions should be mentioned. New constants, initial critical data, if available, or formulae should be included. Names of new species should not be listed in the summary but use full scientific names for all organisms. State the statistical test(s) you plan to use and always define the expected sample(s), population or trials (N=?). **NEVER use the phrase "Results show" without first stating the results.** The value of summary is real and considerable, not only for those in attendance, but also for others unable to attend. Summaries shall be presented by the college undergraduate first author. It is the responsibility of the first author of multi-authored summaries to obtain permission from all authors and research advisor(s) to submit the content of the summary.