Scientific-Technical Writing Workshop

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Abstract

The purpose is to expose workshop participants to the basic elements of scientific-technical writing and reinforce protocols and procedures for getting published in refereed journals and conference proceedings.

Information will be presented on (a) opportunities for extension scholarship, (b) basics of scientific-technical writing, including the use of appropriate language, illustrations, and structure, (c) the scientific peer review process, (d) publishing quality research, theoretical, and philosophical articles in refereed journals consistent with prescribed standards and guidelines, and (e) presenting at scientific and professional association conferences. Examples will reinforce precise, concise, and clear writing, the use of tables and diagrams, and the organization of manuscripts according to the APA style manual. Participants will critique samples of writing and interact continuously among themselves and with the presenters in a questioning and discussion format.
Scientific-Technical Writing Workshop Outline

I. Scholarship

Kinds of scholarship
- Write, publish, and present research-based and technical material
- Produce practical, applied extension information
- Make classroom learning effective

Focus of workshop – writing, publishing, and presenting
How to be successful in this
- Observe basics of scientific-technical writing
- Follow journal/conference protocols and procedures
- Understand peer review process and criteria of refereed publications and conference presentations

II. Basics of Scientific-Technical Writing

Importance of writing well so readers understand what we mean
Elements of scientific-technical writing style – language, illustration, structure

*Style: Language*
Language is the way words are used: what words are chosen, and how they are arranged into phrases, sentences, and paragraphs. Language is also the use of numbers, equations, abbreviations, analogies, examples.

Constraints of language
- Inform audience as efficiently as possible
- Writer must be “honest”

Seven goals of scientific writing
- Precision – choosing the right words, being specific
- Clarity – not choosing any wrong words, ambiguous phrases or sentences to disrupt flow
- Familiarity – use language the audience understands; avoid unfamiliar words and jargon
- Forthrightness – sincere and straightforward; strong nouns, verbs; active voice
- Conciseness – eliminate redundancies, “writing zeroes”; use simplest possible sentences
- Fluidity – vary length an types of sentences and paragraphs; make smooth transitions
- Imagery – concrete description; words that give pictures.

*Style: Illustration*
Illustration is the meshing of figures and tables with language. Effective illustrations clarify complex ideas and images.
Tables – useful in presenting numerical data accurately, making comparisons
Drawings include line sketches; diagrams include line, bar, and circle graphs

Goals of illustration are same as goals of scientific language
Style: Structure
“A whole is that which has a beginning, a middle and end” - Aristotle

The Beginning
States what the research is, tells what main results are, and prepares readers for understanding how results were obtained.
- Title – distinctive and unique, precise and clear
- Abstract – what the research is about, and what the main results are; last section written: typically 5% of length of paper
- Introduction – scope and limitations of research; why research is important; enough background to help readers understand the paper; clues readers into organization of paper

The Middle
“If a man can group his ideas, he is a good writer.” Robert Louis Stevenson

Presents results of research, where they came from, and what they mean.
Strategy for parceling this information to reader:
- Use a logical sequence
- Subsections to allow readers to focus, or skip
- Clear and precise titles for subsections
- Accent important results – repeat for reinforcement; illustrate, italics, quotation marks
- Appendices for detailed or general background information

The Ending
Repeats the most important research results and discusses them in context of whole research; provides a forum for recommendations for future research.

III. Publishing in Refereed Journals

The Editor-Reviewer-Author Triangle
All three parties share a common purpose, i.e., quality research presentation; seek that purpose courteously and efficiently.
Roles and responsibilities:
- Editor – liaison with editorial board, reviewers; business management; interface with authors; editing
- Reviewer – subject-matter expertise, grammar and writing skills; constructive reviews, including timeliness, critical reading and evaluation, thoughtful comments, publication recommendations
- Author – quality research; quality presentation; observe journal guidelines; understand review process and criteria; timely and constructive response to reviewer/editor suggestions
**Scientific Peer Review**

Origin – Royal Society of Edinburgh (1731), Royal Society of London (1752)

Institutionalization – in 20th century

Downside – not itself a scientific process, bureaucratic rather than collegial

The blind review process of journals

- JIAEE flowchart
- Review criteria – content, readability
- Reviewers’ recommendation regarding disposition of manuscripts

**Guidelines for Preparation and Submission of Manuscripts**

Checklist to evaluate quality of research

Parts of a manuscript (summarized from APA Manual)

Checklist to evaluate quality of presentation of manuscript

Following targeted journal’s guidelines

**IV. Presenting at Scientific and Professional Association Conferences**

Conference calls for different types of presentations – paper, poster, roundtable (examples of AIAEE, NAERC)

**References for this Section**


**B. Examples of poorly-done and well-done Abstract, Title, Table, Narrative, and Citation-Reference**

**C. Audience Experiences and Questions**

**D. Evaluation of Workshop**
Scientific-Technical Writing Workshop Notes

“We are all apprentices in a craft where no one ever becomes a master.” Ernest Hemingway.

Scholarship

As agricultural and extension education professionals, we engage in scholarship of different kinds to express ourselves – our thoughts, ideas, experiences – and share these with our peers, students, other related groups, and the public at large. In pursuing the goal of scholarship, we have the opportunity to write, publish, and present in various ways research-based and technical material which is of interest to fellow professionals and adds to the knowledge base of our disciplines. We also have the opportunity to produce agricultural and extension education information which lay people interested in technology can use to benefit them in their daily lives. Making sure that learning in the classroom is interesting, up-to-date, grounded in theory and research, and effective is another important aspect of scholarship.

This workshop is focused on the scholarship of writing, publishing, and presenting information on philosophical issues, theoretical constructs, and empirical research results. Technical reports, articles published in refereed research journals and conference proceedings, and conference presentations are the primary means by which we can share our scholarly writing. To be successful in this endeavor, we have to (a) observe basics of scientific-technical writing, (b) follow the protocols and procedures of the journals we are writing for or the conferences where we present papers, (c) appreciate the author-editor-reviewer roles and responsibilities, (d) know the review criteria and observe the peer review process for manuscripts prescribed by agricultural and extension education journals, and (e) follow the submission format criteria for different types of conference presentations.

In conducting this workshop we will share with you information on the above aspects, point out some of the common pitfalls, and ask you to share your publication and presentation experiences. As we planned the workshop we knew that many of you have been writing, publishing, and presenting your work for a number of years. We also knew that there would be some in the group with less experience, and perhaps others who might be just beginning. We therefore had difficulty deciding the level at which we should pitch the presentation. We hope that what we have for you today is useful and interesting to all, without being redundant for the more experienced among you.

Basics of Scientific-Technical Writing

Whether our goal is to publish or to present scientific (theory/research-based) or practical (experiential, empirical) information, the reader has to understand what we mean. To be successful in this we have to write well. And to write well, we have to observe a scientific/technical writing style, organize the content, and follow a format that will inform readers in an effective manner.

Scientific/technical writing style has three elements: language, illustration, and structure. Language includes what words are chosen and how they are used; illustration involves the
integration of words with pictures; and structure means organizing the information into sections and deciding what information is included, what is left out, what is emphasized, and what is not.

Organizing a manuscript includes the way theoretical, philosophical, and/or empirical information is presented and arranged in a manuscript.

Format refers to such things as typeface, how pages are numbered, how sources are referenced.

**Style: Language**

Language is the way words are used: what words are chosen, and how they are arranged into phrases, sentences, and paragraphs. Language is also the use of numbers, equations, abbreviations, analogies, and examples.

The language of a paper/report must inform the audience as efficiently as possible, i.e., takes the shortest time for readers to understand. Second, all relevant information – positive and negative – must be included; the writer has to be “honest.”

There are seven goals of scientific writing: precision, clarity, familiarity, forthrightness, conciseness, fluidity, imagery. (Use figure, p 27)

**Precision.** Being precise means choosing the right words, and being specific without being too specific.

On choosing the right word, *Mark Twain* said “Use the right word, not its second cousin. The difference between the right word and the almost right word is the difference between “lightning” and “lightning-bug.”

*Which of the following statements is the most precise?*

- *Air is comprised mainly of nitrogen and oxygen.*
- *Air is composed mainly of nitrogen and oxygen.*
- *Air is 78% nitrogen, 21% oxygen.*

- *Fertilizer is comprised mainly of nitrogen, phosphorus, and potassium.*
- *Fertilizer is composed mainly of nitrogen, phosphorus and potassium.*
- *Fertilizer is different proportions of nitrogen, phosphorus, and potassium.*

Don’t hesitate to repeat a word if that word’s the right word.

You have to deal with the dictionary meanings (denotations) and associated meanings (connotations) of words. “Adequate” (dictionary) means enough for what is required; but an “adequate” shelter in a stress experiment on cattle may have an opposite connotation (less than what is required).
Precision in scientific writing also means being specific or providing details (but only important details) that are appropriate for your research and audience.

**Clarity.** “When you are out to describe the truth, leave elegance to the tailor” – Albert Einstein.

Precision means choosing the right words. Clarity means not choosing any wrong words, ambiguous phrases or sentences which can disrupt the flow and authority of precise writing.

Clarity means keeping phrases and sentences simple; avoiding vagueness, using pronouns appropriately, punctuating correctly.

**Phrases:** Don’t string adjectives before nouns:

*The survey is a researcher-designed 5-point Likert anchored positive scale 42-question set.*

*The researcher-designed survey is a set of 42 questions on a 5-point Likert scale, positively anchored.*

**Sentences:** Don’t use complex sentences and long sentences that confuse readers.

One way to **avoid vagueness** is to remove abstract nouns – ability, capability, concept, factor, nature, parameter.

**Using pronouns appropriately:** A pronoun refers to the last noun used.

*To answer the question on the survey about poverty in the community, it appeared in the desired order.*

*What appeared in the desired order? The question? The survey about poverty? The community?*

**Punctuating correctly:** Punctuation rules are designed to eliminate ambiguities in language. A simple punctuation mistake undermines the authority of a piece of writing.

**The Period.** In scientific writing, periods are not used enough to end sentences. Use a variety of long, short, and medium-length sentences. Hold average sentence length to no more than 17 words, not 27 words as in so many journal articles.

**The Comma.** Commas are used to indicate a pause. Don’t overuse or under-use commas.

In a series of three or more items, use a comma to separate each term: *Hydrogen, oxygen, and nitrogen.*

To set off contrasted elements. Such elements begin with but or not: *He is only 15, not 17 as his height suggests.*
The Colon. Colons introduce lists:
*The daily diet should contain essential nutrients: water, protein, carbohydrates, minerals, and vitamins.*

Colons are also used for definitions:
*The teacher introduced the class to the discipline of sociology: the study of human relationships.*

The Semicolon. Connects two sentences closely linked in thought:
*There is no cure for Alzheimer’s disease; it brings dementia and slow death to thousands of Americans every year.*

The Dash. The dash is used for parenthetical remarks, or phrases and clauses:
*The survey included fixed-choice questions – as opposed to open-ended – questions.*

<table>
<thead>
<tr>
<th>Unclear writing</th>
<th>Clear writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the other department heads ask for budget information, it is my expectation that the Budget Director relate to them regarding their information needs in a method that is understandable as far as terminology is concerned.</td>
<td>When other department heads ask the Budget Director for information, I expect him to answer them in language they can understand.</td>
</tr>
</tbody>
</table>

Familiarity. To inform your audience, you must use language that your audience understands. Every discipline has its own terms. It’s alright to use these terms when communicating among peers in your discipline. But for others with whom you wish to communicate or who may have an interest in your writing, it is important to define unfamiliar words and avoid jargon.

What is the best way to define a word? If short, include within the sentence. If long and complex, define in a sentence or two. Use familiar words in the definition.

Jargon is abbreviations or slang words particular to a research setting or tradition. Keep unfamiliar abbreviations to a minimum.

Examples help readers remember general statements and abstract ideas.

Forthrightness. “Short words are the best and old words when short are the best of all.” - *Winston Churchill.*

Being forthright in scientific writing means being sincere and straightforward.

Use strong nouns. Nouns provide anchors in sentences. Choose specific nouns that need few adjectives:
*With computers, we modeled how much ash spewed from Mount St. Helens.*
Use strong verbs.

<table>
<thead>
<tr>
<th>Weak verb phrase</th>
<th>Strong verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performed the development of</td>
<td>developed</td>
</tr>
<tr>
<td>Made the arrangement for</td>
<td>arranged</td>
</tr>
<tr>
<td>Made the measurement of</td>
<td>measured</td>
</tr>
<tr>
<td>Made the decision</td>
<td>decided</td>
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</table>

Write in active voice as far as possible. Passive verbs slow your writing and reduce efficiency. First person is not taboo in scientific writing. “I” or “we” is forthright and direct, while “the author”, “the researcher” suggests that the writer is somebody else.

Write analytically. In analytical writing, weights are assigned to details so that important details stand out:

*Because the February plant outage gave us time to repair the north side of the receiver, we repainted the panels with Solarcept, a new paint developed to increase absorptivity* Reasons are given for the details – “because” introduces to the reader what things were done and why.

Avoid pretentious words. They offer no precision, clarity, or continuity. Here is a list of pretentious words and their simple equivalents:

- **Approximate**   About
- **Capability**    Can
- **Implement**     Carry out
- **Interface**     Meet
- **Networking**    (An awkward verb)
- **Utilization**   Use
- **Activate**      Start
- **Component**     Part
- **Contiguous**    Adjacent
- **Demonstrate**   Show
- **Finalize**      Finish
- **Initialize**    begin
- **Subsequently**  Then

Avoid arrogant phrases

*As is well known; of course; clearly demonstrates; it is obvious.*

Avoid clichés (figurative expressions that are too familiar).

*Touch base; Time frame; Brainstorm; Major thrust; Up to speed*

**Conciseness.** Concise language eliminates redundancies and writing zeroes; reduces sentences to their simplest form.

Redundancies are needless repetitions of words:
The use of metaphors to describe organization is becoming increasingly more widespread among theorists.

The verb phrase “is becoming increasingly more widespread” is redundant. Revised it reads: Theorists are using metaphors more to describe organization.

Which word(s) is/are redundant in the phrases below?
Already existing  
Alternative choices  
Basic fundamentals  
Completely eliminate  
Empty space  
Mix together  
Never before  
Now at this time

Writing zeroes have no meaning; do not offer the reader anything. Common writing zeroes: It is interesting to note; I might add; It should be pointed out; It is significant; As a matter of fact; In a manner of.

Reducing sentences to their simplest form makes them easier to understand.

Use first person:
Following observance of this event, it was determined  
We then determined

Cut out fat:
It was then concluded that a second test plot should be laid to verify the findings.  
We laid a second test plot to verify the findings.

Common fat phrases and substitutes:
At this point in time  now  
At that point in time  then  
In the event of  if  
In the vicinity of  near  
Owing to the fact that  because

<table>
<thead>
<tr>
<th>Wordy writing</th>
<th>Concise writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reason that quality control over the past several years has gone down is that management has not taken the trouble to train inspectors enough for the job.</td>
<td>Quality control has suffered in recent years because management has not trained inspectors adequately.</td>
</tr>
</tbody>
</table>
Fluidity. “It don’t mean a thing if it ain’t got that swing.” Louis Armstrong

Fluidity in language comes from varying sentences, varying paragraphs, and making smooth transitions between sentences.

Sentences can be varied by (a) varying the way they begin, (b) varying their length, and (c) varying their type – mixing simple, compound, and complex sentences.

Paragraphs can be varied by (a) varying their size (number of lines), and (b) varying the number, length, and type of sentences.

Connecting words help smooth transitions between sentences, namely; also; and; but; finally; however; moreover; next; therefore; then.

Imagery. People remember images, not abstractions. Therefore, anchor your writing with images.

Concrete, specific description uses the five senses.

Select words that give pictures.

Use imagistic analogies.

Style: Illustration

The chief consideration should be to keep the information as simple as possible, but no simpler – Albert Einstein

Illustration is the meshing of figures and tables with language. Effective illustrations clarify complex ideas and images. They give the reader breathing room from the narrative.

There are two types of illustrations: tables and figures. Tables are arrangements of numbers and descriptions in rows and columns. Figures are everything else: photographs, drawings, diagrams, graphs.

Tables are useful in presenting numerical data accurately and in making comparisons.

Drawings include line sketches of the characteristics of objects. Diagrams use symbols to show flow charts, schematics, etc. Graphs – line, bar, and circle – show general relationships in data. Line graphs are effective in showing trends; bar graphs are useful in comparing data items; circle graphs help compare the parts of a whole.

The goals of illustration are the same as the goals of scientific language.

Precise: Don’t include details that aren’t self-explanatory or explained in the text.
Clear: Don’t think illustrations can speak for themselves. They should have clear titles, labels for parts of the illustration, and an explanation in the text.
Familiar: Consider what your audience knows and what they do not know. Bridge the gap. Don’t assume that they know as much as you do about your work.
Concise: Don’t put so much information into illustrations that readers don’t get anything out.
Fluid: Match the information in your text with what’s in your illustration. Fit illustrations vertically into the text. Have illustrations closely follow the text reference.

Style: Structure

“A whole is that which has a beginning, a middle, and end.” Aristotle.

The Beginning

In a strong beginning, you state what your research is, you tell what your main results are, and you prepare readers for understanding how you got those results.

The Title

- Tells readers what your research is, why it is distinctive, unique. Should be precise and clear.

The Abstract (informative summary)

- Tells readers upfront (a) what the research is about (repeat key words from the title and add length and location of the research), and (b) what the main results are.
- Is the sum of the significant points of the research? After reading the abstract, the reader need only read the paper to find out how the research was done.
- Is the last section written? Typically, abstracts are about 5% of the paper’s length.

The Introduction

- Precisely identifies the research – scope (what things the research will cover) and limitations (what things the research will not cover).
- Tells readers why the research is important
- Gives readers enough background material to help readers understand the paper
- Gives readers a clue to the organization of the paper (so they can make the transition to the middle). (Baptist preacher’s sermon on 3 sins)

The Middle

“If a man can group his ideas, he is a good writer.” Robert Louis Stevenson.

The middle of a paper presents the results of the research, where they came from, and what they mean.

The strategy for the middle of a paper is a path for parceling information to the audience.

- Use a logical sequence – based on variables of interest, logical parts of the research
• Make subsections to allow readers to find information of what interests them, or skip information that does not interest them.
• Use clear and precise titles for subsections; not more than ten paragraphs to a subsection.
• Present results according to the logic you decided on. Accent the important results – repeat for reinforcement; illustrate to stand out; use language to call attention – italics; quotation marks; one sentence paragraph; short sentence at the end of a long paragraph.
• Use appendices with detailed or general background information to not burden the reader in the main text.

The Ending

• Repeats the most important results of your research and discusses those results in the context of the whole research.
• Provides a forum for recommendations for future research.

Publishing in Refereed Journals

The Editor-Reviewer-Author Triangle

Besides the basic assumptions of quality research and theoretical work, and quality presentation of these works, key requirements for good scientific writing and publication, the success that authors have in getting their work published in refereed journals depends on how they respond to the comments and suggestions of journal referees and editors. Indeed, author, editor, and reviewer (referee) form a triangle. The angles may come under strain but all three parties share a common purpose and should seek that purpose courteously, even affably, and certainly efficiently. That means communication with a human touch and with the retention of trust.

Roles and responsibilities of the three parties with respect to scientific journals may be described as follows:

Editor

• Liaison with the journal’s editorial board – establish, maintain, communicate with members.
• Manage business matters of the journal – cost and revenue, audit, publication.
• Interface with authors – sufficient and timely manuscript flow, needed revisions, correspondence; establish relationship of trust
• Liaison with reviewers – manage review process, including selection of appropriate referees, synthesis of reviewer comments, cross-correspondence to enable and monitor revisions.
• Editing responsibility – ensure effective writing and presentation of manuscripts, and publication of a quality journal; maintain an objective eye: pruning, shaping, clarifying language, but don’t alter the writer’s style
Reviewer

- Journal reviewers should have subject-matter expertise and grammar and writing skills, and believe in a constructive review process that ensures the publication of quality research and theoretical work. They have the following responsibilities:
  - Receive and return manuscripts according to the editor’s deadlines
  - Critically read for subject matter content, rigor, and usefulness to the journal’s readers.
  - Evaluate each manuscript according to the journal’s prescribed criteria and rating system.
  - Provide thoughtful and thorough comments on each manuscript
  - Make recommendations regarding publication.

Author

- Ensure that you are reporting quality work (use above checklist)
- Prepare a quality manuscript, free of technical flaws, written in simple, clear, precise language, systematically organized, and in the appropriate format or style (APA or other) (use above checklist)
- Follow manuscript preparation and submission guidelines of the journal which you have chosen to publish your work
- Understand review process and criteria of the specific journal
- Respond constructively to critique, suggestions, and comments of reviewers
- Justify/take a stand on reviewer comments and suggestions with which you do not agree and defend your position/writing
- Establish trusting relationship with editor
- Revise and resubmit manuscripts expeditiously

Scientific Peer Review

The beginning of scientific peer review dates back to the 18th century. The Royal Society of Edinburgh (1731) described a process resembling peer review today:

Memoirs sent by correspondence are distributed according to the subject matter to those members who are most versed in these matters. The report of their identity is not known to the author. Nothing is printed in this (the Society’s) review which is not stamped with the mark of utility.

The Royal Society of London (1752) introduced the concept in its scientific organ. A committee of five members formed a quorum, and other knowledgeable and skilled members in a particular branch of science could be called on to give their opinion.

Institutionalization of the peer review process in various editorial settings took place mostly in the 20th century, however – to handle problems in the number of articles submitted, to meet the demands of an increasingly specialized world, to introduce objectivity as opposed to personal opinion, to protect the authority of science and the gatekeeping function that undergirds it, and to promote efficiency.
Peer review has its downside, though.

- Institutionally and individually, we tend to forget that just because peer review reviews scientific work that does not mean it is itself a scientific process.

- The peer review process often seems to be a sort of sausage machine for grinding out the truth; rather, the process needs to be seen as a discussion among honest and able people, working within the system of institutionalized science, making the clearest sense of the information they all share.

- The process is promoted by journals as a validity-producing machine, and by academe as the sole indicator of scholarly research and the basis for tenure and promotion As a result, editorial peer review is now a bureaucratic rather than a collegial process.

Refereed journals usually use a blind review process. That is, all references to the author(s) are removed before the manuscript is sent out to reviewers. There may be two or three reviewers of a manuscript. If there are two reviewers, the editor plays a major role in splitting a tie vote or obtaining a third opinion. With three reviewers, usually two favorable reviews will be decisive. Of course, the editor always has the responsibility and the right to weigh in on the decision in a significant way.

Depending on the journal’s editorial policy, author revisions of manuscripts may be resent to specific reviewers for confirmation or the editor may make that determination. Some journals use different reviewers (one or more) to scrutinize author revisions.

Prospective authors need to understand the peer review process that refereed journals use to enable and ensure the publication of quality research and theoretical work. The manuscript review and publication flowchart of the Journal of International Agricultural and Extension Education (JIAEE) (Appendix 1) is typical of how the editor manages manuscripts in the peer review process and corresponds with reviewers and authors through the process.

Prospective authors should also know the criteria used by refereed journals to evaluate the quality of a submission. Every journal will have its own set of criteria. Shown below is a menu of criteria put together from those specified by the Journal of Extension (U.S.), the Journal of International Agricultural and Extension Education (U.S.), the Journal of Agricultural Education (U.S.), the South African Journal of Agricultural Extension (South Africa), the Journal of Agricultural Extension and Education (Netherlands), and the Indian Journal of Extension Education (India). These criteria are generally used to evaluate two dimensions of an article, i.e., content and readability. The choice of criteria included in these dimensions by a particular journal will depend on the type of article, i.e., research-based, philosophical/theoretical, and practical application. It is important for prospective authors to themselves evaluate or have a peer evaluate their written manuscripts against the specific criteria prescribed by the journal before submitting to the editor.
Content

Contribution: Expands or updates extension/agricultural education research base. Audience: Of broad interest to extension/agricultural educators. Importance: Important enough to give space in the journal. Research uses unique methods and/or produces interesting results. Methods: Offers a clear statement of the research problem and methods used. Findings: Describes the research findings with emphasis on their implications. Usefulness: Helps extension/agricultural educators improve their effectiveness. Indicates the usefulness of the methods or findings to extension/agricultural educators. Rigor: Based on valid and reliable information, documentation or sound concepts; content is empirically, logically and/or theoretically supported. Clear Focus: Central ideas, findings, and conclusions control the article. Has a clear main point.

Readability


Once reviewers complete their evaluation of a manuscript, they recommend to the editor the disposition of the manuscript. The Journal of Extension and the Journal of International Agricultural and Extension Education use numerical rating systems to enable reviewers to score manuscripts on the content and readability criteria, and to judge the manuscript’s suitability for publication. They can recommend to the editor that the manuscript be (a) published (i) as is, (ii) with minor revisions, or (iii) with major revisions; (b) overhauled from the start by the author, or (c) rejected. The Journal of Agricultural Education requires reviewers to say whether the manuscript is acceptable or unacceptable based on their evaluation of the manuscript’s theoretical framework, purpose/objectives, methods/procedures, results/findings, conclusions, recommendations/implications, and contribution to knowledge. Reviewers are also encouraged to make constructive suggestions and observations regarding the content and writing of articles.

Naturally, potential authors would like to see their work published in journals of their choice. Assuming that the quality of research and the quality of presentation are ensured by authors, the likelihood of getting published is greater in a journal with a higher acceptance rate than journals with lower acceptance rates. Typical acceptance rates are: JOE: __%; JIAEE __%; SAJAE __%; JES __%; JAEE __%; JAE __%.
Guidelines for Preparation and Submission of Manuscripts

Content and organization

The scientific journal is the traditional medium for communicating research results. Writing manuscripts for publication in journals requires that authors (a) ask themselves if their research is worth writing or is publishable, (b) decide the basic organization of the manuscript, and (c) consistently follow a presentation format specified by journals which they are considering.

Bartol (1981) suggests a checklist to evaluate the quality of research:

- Is the research question significant, and is the work original and important?
- Do the research instruments have satisfactory reliability and validity?
- Are the outcome measures related to the variables with which the investigation is concerned?
- Does the research design test the hypothesis? (if that is the intent)
- Do participants represent the population? (if that is the intent)
- Did the researcher observe ethical standards in the treatment of participants?

Journal articles are usually reports of empirical studies, review articles, or theoretical articles.

Reports of empirical studies are reports of original research. They usually have the following sections: introduction, method, results, discussion.

Review articles are critical evaluations of published material. A review article (a) defines and clarifies the problem, (b) summarizes previous investigations or completed research on the problem, (c) identifies relations, contradictions, gaps, and inconsistencies in the literature, and (d) suggests the next step or steps to solving the problem.

In theoretical articles, the author draws on existing research literature to advance theory. The author may present a new theory, or analyze existing theory to point out flaws or demonstrate the superiority of one theory over another.

Parts of a manuscript

Title page

Title – A concise statement of the main topic indicating the variables or theoretical issues investigated and the relationships between them. Should stand alone. Do not include words/phrases such as method, results, a study of, an investigation of.

Author’s name (first, middle initial, last) and institutional affiliation (location where the investigation was conducted).

Abstract
- Accurate – reflects purpose and content of the manuscript
- Self-contained – Define all abbreviations and acronyms; define unique terms; Paraphrase quotes
• Concise and specific – Begin with the most important information (purpose, or results and conclusions); use digits; abbreviate; use the active voice.
• Coherent and readable – Write clearly – verbs not nouns, active not passive voice; present tense for results and conclusions; past tense for variables and tests used;

Introduction
• Introduce the problem
• What is the specific problem and how does the research strategy address the problem?
• What are the study’s theoretical implications and relationships with previous work on the problem?
• Develop the background
• Discuss earlier work, citing only pertinent not tangential works. Emphasize relevant findings, methodological issues, and major conclusions of these works.
• Show how previous works connect with the study.
• State the purpose/objectives and rationale

Methodology
• Describe in detail how the study was conducted. This enables the reader to evaluate the appropriateness of your methods and the validity and reliability of your results.
• Indicate the design of the study, the study participants, data collection instruments and procedure, and how the data were analyzed.

Results
• Summarize the findings according to the stated purpose/objectives.
• Use appropriate tables and/or figures to support the text.
• Include in tables or text the appropriate statistical tests you performed to determine relationships, differences, or other criterion measures. When reporting inferential statistics (e.g. t-test, F test, and chi-square), include the calculated value of the statistic, the degrees of freedom, the probability level, and the direction of the effect. Be sure to include descriptive statistics (e.g., means or medians); with means include standard deviations, variances, or mean square errors.

Discussion/Conclusions
• Evaluate and interpret the implications of the results obtained. If a hypothesis has been stated, make a clear statement of the support or non-support of the hypothesis.
• Draw inferences from the results bearing on the problem studied. Similarities and differences of your results with the work of others should clarify and confirm your conclusions.
• Identify the practical and theoretical implications of your study. What is the study’s contribution? How has the study helped to resolve the problem? What conclusions and theoretical implications can be drawn from the study?
References

- Just as data in the manuscript support interpretations and conclusions, so reference citations document statements made about the literature. All citations in the manuscript must appear in the reference list, and all references must be cited in the text. The reference list should be succinct, not exhaustive. The standard procedures for citation ensure that references are accurate, complete, and useful to investigators and readers.

- Support your statements by citing empirical or non-empirical work. For the latter, use such phrases as “theorized”, “argued”, and “advocated.”

Bartol (1981) suggests a checklist to evaluate the quality of presentation of a manuscript:

- Is the topic appropriate for the journal to which the manuscript is submitted?
- Is the introduction clear and complete?
- Does the statement of purpose adequately and logically orient the reader?
- Is the literature adequately reviewed?
- Are the citations appropriate and complete?
- Is the research question clearly identified, and is the hypothesis explicit?
- Are the conceptualization and rationale clear?
- Is the methodology clearly and adequately described?
- Are the data analysis techniques appropriate, and is the analysis clear?
- Are the results and conclusions unambiguous, valid, and meaningful?
- Is the discussion thorough? Does it stick to the point and confine itself to what can be concluded from the significant findings of the study?
- Is the writing concise?
- Is the manuscript prepared according to the journal’s guidelines and style requirements (APA, Chicago, etc.)?

Journal guidelines

Journals prescribe guidelines for authors to follow in preparing and submitting manuscripts. These guidelines are published in every issue of a journal and, in general, include the manuscript’s outline showing appropriate sections, arrangement and style of headings and subheadings, placement of tables and diagrams, and reference citations. Appendix 2 shows guidelines for the SAJAE and JIAEE.

Extension and agricultural education journals require APA style (fifth edition, 2001) in the formatting of manuscripts. Appendix 3 describes the major points of APA style that authors need to observe as they produce and get their manuscripts ready for submission. Knowing these format requirements prior to putting pen to paper or sitting at the computer keyboard is a wise investment of time and makes one’s writing easier and more effective.

Some journals such as the Journal of Extension require (encourage) electronic submission of manuscripts. Others accept multiple (usually four) paper copies.
Use of word processing equipment to prepare manuscripts is now quite common. Authors need to follow the specific journal’s specifications for the software program (MS Word or WordPerfect) to use and the instructions on fonts and formatting.

**Presenting at Scientific and Professional Association Conferences**

Scientific and professional association conferences are an important avenue for sharing one’s scholarship. Peer review requirements of conferences impose the same expectation of quality on authors as refereed journals. Hence, authors need to understand and conform to the specifications included in the invitations for paper, poster, roundtable and other types of presentations issued by conference organizers.

In general, calls by conference organizers prescribe a format for preparing paper proposals and the submission procedure. These are usually about the same in terms of the outline to be followed and the items to be included. The main difference among conferences is whether an abstract or a full paper is required by the proposals submission deadline. For an AIAEE conference, for example, a 3-page abstract suffices at the proposal stage for review and the full paper is needed for inclusion in the conference proceedings. The National Agricultural Education Research Conference (NAERC), on the other hand, requires the full paper to be submitted at the review stage for the accept/reject decision to be made. (See Appendix 4 for NAERC’s 2001 call for papers).

Obviously, authors would like their proposals to be accepted for presentation at conferences. Typically, AIAEE has an acceptance rate of 60% and NAERC 40%.

AIAEE’s call for proposals for posters and roundtables is at Appendix 5.

**References Cited**


ATTACHMENT #1
MANUSCRIPT REVIEW AND PUBLICATION FLOWCHART

A. Manuscript Received
   - Select Reviewers
     - Three Reviewers: Feature Articles
     - Two Reviewers: Commentary, Tools Articles
   - Send to Reviewers

B. Reviews Received
   - Decide Disposition
     - Suitable for Publication
       - Notify Author
       - Work With Author
     - Major Revisions
       - Publish
       - Send Journal to Author
     - Not Suitable for Publication
       - Write to Reviewers
       - Write to Author
       - Synthesize Reviewer Comments
       - Return to Author For Revision

C. Revised Manuscript Received
   - Decide Disposition
     - Suitable for Publication
     - Not Suitable for Publication
   - Similar Steps as in (E)
ATTACHMENT #2
SOUTH AFRICAN JOURNAL OF AGRICULTURAL EXTENSION
DIRECTIVES TO AUTHORS

1. EDITORIAL POLICY
1.1 Only original scientific contributions relating to agricultural extension will be considered for publication. By "scientific originality" is meant
   • original thought
   • responsible scientific reasoning.
1.2 Conclusions must as far as possible be empirically founded.
1.3 Because of the multi-disciplinary nature of agricultural extension, contributions from other learned disciplines can also be considered for publication on condition that the articles under consideration have sufficient bearing on agricultural extension.
1.4 Submission of a paper will be taken to imply that the material has not previously been published, and is not being submitted for publication elsewhere.
1.5 The South African Society for Agricultural Extension (SASAE) does not necessarily subscribe to the opinions/conclusions expressed by authors in its journal. Authors carry the full responsibility themselves regarding the correctness of their publications.
1.6 Copyright of all published material rests with the SASAE.
1.7 All submitted articles are reviewed by a panel of SASAE adjudicators and at least two outside referees to determine whether an article can (or cannot) be published.
1.8 To facilitate the international exchange of knowledge, articles should be written in English. Articles that have been presented in Afrikaans, should be accompanied by a comprehensive summary in English. Such a summary should comprise approximately 20 percent of the total length of the article.
1.9 Only English and Afrikaans contributions are accepted for publication.

2. EDITORIAL REDACTION
Authors should take note of the following:

2.1 The TITLE of their article must be short and concise. The initials and surname of the author(s) must appear directly below the title with the author’s title and the name and address of the institution where the research was done appearing as a foot note at the bottom of the first page of the article.

The content of the article must match its title.

Articles written in Afrikaans must include the above details in English.
2.2 The ABSTRACT should not exceed 200 words. Normally four to five concise sentences should summarize the content of the article. Afrikaans articles must include an "Abstract" in English.

2.3 The CONTENT must be orderly arranged with appropriate headings for each sub-section. The following sub-division is recommended:

- Definition of problems/Hypotheses
- Procedure
- Findings/Conclusions/Recommendations
- Summary (paragraph 1.8)
- Bibliography/Acknowledgments

Decimalize all paragraph nomenclature (e.g. paragraph 4.2.1)

Headings should not be underlined.

Control the technical and grammatical correctness of the article.

2.4 TABLES and FIGURES must be submitted in publishable form on separate sheets of paper. Their exact placing must be indicated in the text, e.g.

```
Insert Table 4
```

Authors must use suitable drawing instruments, draw uniform lines and use a letter size that will remain conveniently legible even after reduction. Table captions must be placed above the relevant Tables and Figure captions below the relevant Figures e.g.

```
FIG 3 A hypothetical model of mediating function of perception with decision making (after Duvel, 1975; 27).
```

All Tables and Figures must be referred to in the text.

2.5 Only accepted ABBREVIATIONS may be used.

Figures from one to nine must be written out in full. Use figures for numbers higher than nine, fractions or units (e.g. 3.6 kg).

Use metric units according to the SI and in accordance with international practice.

2.6 REFERENCES in the text must include the relevant page reference (e.g. Vosloo, 1979: 24). The abbreviation et al is only permissible after the relevant authors have been quoted in full in the text and is in any case only applicable to sources consisting of three or more authors.
All references must be listed alphabetically according to the surnames of the authors. The names of the authors appear in capital letters and the rest of the reference in small letters. The names of journals must be abbreviated according to the "World List of Scientific Periodicals", and printed in italics.


3. ADMINISTRATION

3.1 Manuscripts must be submitted directly to "The Editor, SASAE Publications, Dept. of Agricultural Economics, Extension and Rural Development, University of Pretoria, 0002 PRETORIA".

3.2 Manuscripts typed in 1 1/2 spacing, are submitted in three fold. A copy of the manuscript on computer disc (stiffy) in Word Perfect 5.1 or 6.0 or Microsoft Word 6 should accompany the manuscript.

3.3 Manuscripts are judged by the SASAE panel of adjudicators and two referees regarding their originality in the discipline of agricultural extension. Referees submit their written recommendations to the Editor (or his delegate).

3.4 Manuscripts received after the last day of May will only be considered for publication during the following year.

3.5 Decisions made by the SASAE publication committee regarding SASAE publication matters are final.
ATTACHMENT #2

Journal of International Agricultural and Extension Education
Manuscript Submission Guidelines

General Requirements
All manuscripts should indicate the type of article—Feature; Commentary; Tools of the Profession—on the first page of the manuscript in the upper right-hand corner. Do not send a diskette with your manuscript submission. A diskette will be requested if the article is accepted following the Journal’s double-blind, peer-reviewed process. Diskette preparation guidelines will be supplied at that time. Manuscripts should not have been published or be under current consideration for publication by another journal.

The Journal follows the standards set forth in the latest Publication Manual of the American Psychology Association (APA). The Journal of International Agricultural and Extension Education is a publication of the Association for International Agricultural and Extension Education (AIAEE).

Feature Articles
Manuscripts of Feature Articles are submitted to the editor. Four double-spaced copies of manuscripts without author’s name or affiliation are required. The article should include an abstract (a succinct gist of the article’s content) not exceeding 150 words. A separate title page with title, institution, complete address, telephone and fax numbers, and email address for each author is required. There is no submission fee charged for submitting a feature article. A $10.00/page (actual pages in the Journal) publication fee will be charged to the lead author upon acceptance to the Journal. Articles should be no longer than 12 double-spaced 12-pitch (11 point) pages (including references, tables and figures) with one-inch margins on all sides.

Commentary Articles
Manuscripts of Commentary Articles are submitted to the editor. Three double-spaced copies of manuscripts are required. Include on the first page of the manuscript, the title, and the institution, complete address, telephone and fax numbers, and email address of each author. There is no submission charge for the manuscript, but there will be a $10.00/page (actual pages in the Journal) publication fee assessed to the lead author upon acceptance to the Journal. Articles should be no longer than 8 double-spaced 12-pitch (11 point) pages (including references, tables, and charts) with one-inch margins on all sides.

Tools of the Profession Articles
Manuscripts of Tools of the Profession Articles are submitted to the editor. Three double-spaced copies of manuscripts are required. Include on the first page of the manuscript, the title, and the institution, complete address, telephone and fax numbers, and email address of each author. There is no submission charge for the manuscript, but there will be a $10.00/page (actual pages in the Journal) publication fee assessed to the lead author upon acceptance to the Journal. Articles should be no longer than 4 double-spaced 12-pitch (11 point) pages (including references, tables, and charts) with one-inch margins on all sides.

Send all submissions to: Dr. Gary J. Wingenbach, Editor
Journal of International Agricultural and Extension Education
2116 TAMU, 112 Scoates Hall
Texas A&M University
College Station, TX 77843-2116
g-wingenbach@tamu.edu
ATTACHMENT #3
Guidelines for Writing in APA Style

Note: This is a revised version of a document published on the Internet by William U. Borst, Troy State University, Phenix City (http://www.ldl.net-bill/aparev.htm)

APA style is the style of writing specified in the Publication Manual of the American Psychological Association (5th ed., 2001). This document is a quick reference when writing papers. The page numbers given at the end of each checkpoint refer to information on the specific topic in the Publication Manual.

Journal Article Authorship

To be listed as a co-author, one must have made substantial contributions to the design of the study, writing of the manuscript, or in other significant ways. The co-author who had the greatest responsibility for the manuscript should be listed first, with other co-authors listed in order of declining responsibility. It is unethical to omit the names of those who made substantial contributions and it is also unethical to include individuals as co-authors who did not make substantial contributions. See the APA Manual for additional information.

APA Basic Format

The following is a summary of APA basic format requirements.

1. Margins should be 1" from top, bottom, and sides (except the manuscript page header; APA, 2001, pp. 286-287). If using WordPerfect, set the bottom margin at .6 inch so that the page number of footer will appear .6 inch from the bottom of the page and the last line of text will be 1 inch from the bottom of the page.

2. Double-space all manuscripts (APA, 2001, p. 286). Most journals accept single-spaced references with a double space between references. Also, many journals require single-spaces abstracts.

3. Acceptable typeface is Courier or Times New Roman and 12-point size (APA, 2001, p. 285). The same font size and style should be used throughout the manuscript except in those cases where bold, italic or underline fonts are appropriate. Text in tables and figures should also be the same size and style as used throughout the manuscript.

4. Justification only on left side of paper. In other words, the right side of the paper should have ragged edges (APA, 2001, p. 287).


6. Paragraphs are to be indented five to seven spaces (APA, 2001, p. 289).
Checkpoints for Manuscript

The manuscript page header at the top right of the page (½ inch down) is followed by five spaces and then the page number. This should contain the first two or three words of the title. The next line of the title page contains the running head for publication. Note that the running head is entirely capitalized and should be flushed left. The running head should be no more than 50 characters including punctuation and spaces. In the middle of the title page, type and center the following information: Full title of the paper (recommended title is not more than 10 to 12 words long), author name(s), and institution affiliation (APA, 2001, pp. 296-298).

The abstract page should follow the title page. It should start on a new page and is page number two. Type the word Abstract centered on the first line of the page. The abstract should not be more than 960 characters long, including punctuation and spaces. It should be in block form and left justified; in other words, DO NOT indent paragraph. The abstract is a brief, comprehensive, and specific summary of your paper (APA, 2001, pp. 12-15, 298).

The text of the paper will begin on page three. Type and center the title of the paper. The next line is the beginning of the text and should be indented five to seven spaces (APA, 2001, pp. 298-299).

The reference page follows the text. Begin a new page and type the word References and center it. If there is only one reference, type Reference. If references take up more than one page, DO NOT re-type the word references on subsequent pages, simply continue the listings with the first line on the next page (APA, 2001, p. 299).

General APA Rules

Quotation Marks

Use quotation marks (a) to set off the title of an article or chapter in a periodical or book when the title is mentioned in text, (b) to introduce a word or phrase considered slang, or (c) as an invented or coined expression. An example would be a "high tolerance" variable (do not use quotation marks after the initial usage; APA, 2001, pp. 82-83).

Abbreviations

Abbreviations should be used sparingly. Always spell out what the abbreviation means the first time it is used. An example would be Minnesota Multiphasic Personality Inventory (MMPI). Thereafter, use the abbreviation. However, the following abbreviations do not have to be explained: IQ, AIDS, HIV, USA, and other commonly used abbreviations (APA, 2001, pp. 103-111).
Spacing

Space once after colons, commas, semicolons, after periods that separate parts of a reference citation, and after the periods of the initials of personal names (e.g., M. F. Burnett). Do not space after internal periods in abbreviations (e.g., a.m., i.e.) (APA, 2001, pp. 290-291).

Numbers

Use the Arabic symbol with numbers 10 and above (12, 50, etc.) except if being compared with numbers 10 and below. For example, the 4th and 11th grades took a test. However, use the numerical symbol for all numbers in the Abstract page. Spell out the number when beginning a sentence and numbers below 10. To make plurals out of numbers add 's' only with no apostrophe (the 1990s). Use combinations of written and Arabic numerals for back-to-back modifiers (six point scales)( APA, 2001, pp. 122-130).

Underlining

Do not underline for mere emphasis. Underline for titles of books and journals, introduction of new terms and labels (the first time only), statistical symbols (t test), and volume numbers in reference lists.

Headings

Headings indicate the organization of the manuscript and establish the importance of each topic. The Publication Manual (2001) covers the specifics from pp. 111-116. The levels of headings are from a Level 1 heading to a Level 5. Do not label headings with numbers or letters. One may use up to five levels of headings and any level, e.g., one can use APA Level 1 as one’s Level 1, then use APA Level 3 as one’s Level 2. Regardless of the heading pattern selected, one must be consistent throughout the document. Bold font may be used for any level heading.

Level 1 Heading: Centered Uppercase and Lowercase Heading

Level 2 Heading: Centered, Underlined, Uppercase and Lowercase Heading

Level 3 Heading: Flush Left, Underlined, Uppercase and Lowercase Side Heading

Level 4 Heading: Indented, Underlined, Lowercase heading with a period. Text follows in the same line after the period
Citation of Sources in Text

The citation of sources is a key point in writing in APA style format. The APA Manual says that "whether paraphrasing or quoting an author directly, you must credit the source. . . . For a direct quotation in the text, give the author, year, and page number in parentheses" (APA, 2001, p. 120). If any material is left out use three ellipsis points (. . .) within a sentence: use four ellipsis points ( . . . ) when material is left out between two sentences. If inserting explanations in a direct quotation use brackets, not parenthesis. If any incorrect spelling, grammar, or punctuation in the source might confuse readers, insert the word sic, in brackets, and underlined (i.e., [sic]), immediately after the error in the quotation (APA, 2001, pp. 119-120).

Examples

Quotation 1 – Material Left Out Within Sentence

The DSM IV defines the disorder [dysthymic] as being in a chronically depressed mood that occurs for "most of the day more days than not for at least two years (Criterion A). . . . In children, the mood may be irritable rather than depressed, and the required minimum duration is only one year".

Quotation 2 – Material Left Out Between Two Sentences

Issac (1995) states that bipolar disorder "is not only uncommon but may be the most diagnostic entity in children and adolescents in similar settings. . . . and may be the most common diagnosis in adolescents who are court-remanded to such settings".

Quotation 3 -- Long Quotations

With quotations of 40 or more words, DO NOT use quotation marks. Set off the quotation in Block style format. Start quote on new line indented five spaces. Each subsequent line is also indented. See example below:

Elkind (1978) states:

In general, our findings support Piaget's view that perceptions as well as intelligence are neither entirely inborn nor entirely innate but are rather progressively constructed through the gradual development of perceptual regulations. The chapter has also attempted to demonstrate the applicability of Piaget's theory to practical issues by summarizing some research growing out of an analysis of beginning reading. (p. 183)

When paraphrasing someone else's material, cite it. For example, Smith (1996) found that test scores do not necessarily always correlate with IQ scores. If a paragraph is entirely taken from someone else's findings, thoughts, beliefs, etc., then at the end of the paragraph insert parenthesis containing the author’s name and year; for example, (American Psychiatric
Association, 1994). Make sure that anything referenced in the paper is cited in Reference page(s) and anything in Reference page(s) is used in the text.

All citations in the text contain two parts: the author and year of publication. Always insert the year after the author the FIRST time it is used per paragraph, unless it can be confused with a different study, article, book. However, when a citation contains two or more authors use the following rules: (APA, 2001, pp.208-214).

1. Two authors. (Smith & Jones, 1994), or Smith and Jones (1994) found . . .

In 1994, Smith and Jones researched....... (Always cite both names in text.)

2. Three, four, or five authors. Cite all authors the first time the reference occurs. In subsequent citations use the first author's surname followed by "et al.". For example, Strasburger, Jorgensen, and Randles (1996) found differences........ (first time used). Strasburger et al. (1996) also created tests........... (first subsequent citation per paragraph). Starsburger et al. found discrepancies..... (further citations within SAME paragraph, omit year).

3. Six or more authors. Cite only the first surname and follow with "et al." Smith et al. (1996).

4. Groups as authors. First time cited spell out the group; for example, (American Technology Society (ATS), 1996). Thereafter, use the abbreviation followed by the publication year.

For example, The ATS (1996) examined......

Citation of a work discussed in a secondary source. A primary source is the article, book, etc. that has been read and is cited. In some cases, one may wish to use a citation from that work. This is called a secondary source. Always try to consult the original source. If not possible, however, cite the source (secondary) in the text, and refer to the source (primary) actually read. In the reference section, include only the primary source.

1. Works with no authors. When a work has no author, cite in text the first few words of the reference list entry (usually the title) and the year. For example: In an investigation of depression in adults ("Study Finds", 1997) it was reported that....

2. When a work's author is designated as "Anonymous," cite in text the word Anonymous followed by a comma and the date; for example, (Anonymous, 1997). In the reference list, an anonymous work is alphabetized by the word Anonymous (APA, 2001, p. 211).
References

The Reference Page begins on a new page. References should be listed in alphabetical order. In similar names, such as McBride and Macbride, Mcbride should come first. For two or more references with the same author, list first whichever one has the earliest publication year; also, single author citations precede multiple author citations. If there is NO Author, the title moves to the author position, and the entry is alphabetized by the first significant word of the title (APA, 2001, p.210). In instances with two or more references that contain the same author and year, differentiate them by placing a, b, c, d, etc. after the year. For example:


Then use the appropriate year and letter when citing in text. APA requires that all references should be double-spaced and indented. Most journals will take references done this way, or single-spaced references separated with a double space between references. The following reference formats are given as examples, but DO NOT cover how to cite every type of reference. Consult the APA Manual for more information (pp. 215-281). Periodicals with One Author

a. Required Information: Author's surname and initials of first and middle name (if given). (Year of publication). Title of article. Publication information which includes: Journal title and volume number (underlined), the inclusive page numbers. Note: If, and only if, each issue of a journal begins on page 1, give the issue number in parentheses immediately after the volume number. If no publication date is available, write "n.d." in parenthesis.


2. Periodicals with Two Authors


3. Unpublished Manuscript with a University Cited

4. Doctoral Dissertation Abstracted in Dissertation Abstracts International (DAI) and Obtained on University Microfilm


5. Books

6. Information needed: Book authors or editors, date of publication, book title, publication information.


7. Edited Book


8. Article in an Edited Book


9. Groups as Authors

   a. American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author. Note: This is also an example of how to reference editions of books. When the publisher and author are the same, use "Author" for the publisher.

10. Magazine Article


11. ERIC Document

12. Abstracts on CD-Rom


13. Full-Text Article on CD-ROM


14. Personal Communication

a. Personal communications may be memos, letters, lectures, seminars, interviews, telephone conversations, e-mail, and the like. These types of sources do not provide recoverable data and are NOT included in the reference list. Cite personal communications in TEXT only. Give the initials as well as the surname of the communicator, and provide as exact a date as possible:

b. L. L. Pesson (personal communication, April 27, 2002) said that the food situation in the world was promising thanks to biotechnology. See APA, 2001, p. 214 for more information.

15. Electronic Media

a. Internet: The most popular and familiar Internet interface is the World Wide Web (WWW). Authors using and citing Internet sources should direct readers as closely as possible to the information being cited, and provide addresses that work. The following example is a standard APA format for a WWW source:


Miscellaneous Tips

Avoid biased and pejorative language. Do not use 'men' to refer to all adults. Some commonly used acceptable references to populations: African Americans, Native Americans, sexual orientation (not sexual preference), people with depression and people with AIDS (not depressives or AIDS victims or sufferers), Asian Americans (not oriental), older persons (not elderly), lesbians and gay men (not homosexual; APA, 2001, pp. 61-76).
I. Type no more than 27 lines of text per page.

II. Avoid one-sentence paragraphs.

III. Avoid lengthy paragraphs. A paragraph should be no longer than one double-spaced page.

IV. In general, use scientific journals for references (i.e., Journal of Vocational Education Research, Journal of Agricultural Education, NABTE Review, Delta Pi Epsilon Journal, Human Resource Development Quarterly.) In other words avoid using 'popular opinion' journals and magazines, or both (i.e., Techniques, Training, The Agricultural Education Magazine, The Illinois Teacher, Time, Newsweek, USA Today, National Enquirer, Redbook, etc.).

References


In D. J. Keyser & R. C. Sweetland (Eds.), Test critiques: Vol. 10 (pp. 424-428). Austin, TX: Pro-Ed.


ATTACHMENT #4
Call for Papers

28th National Agricultural Education Research Conference
New Orleans, Louisiana - December 12, 2001

Theme:
Research -- Accomplishments, Opportunities, Challenges

CALL FOR PAPERS

WHAT TO SEND:

- Four copies of the manuscript (no cover page)
- One separate copy of the cover page that includes the name, mailing address, phone number, fax number, and e-mail address of all authors

FORMAT:

- 13 page maximum including abstract/tables/figures/references, plus cover page
- Single-spaced
- 12 point Times Roman or Times New Roman font
- All margins - 1 inch
- All tables/figures placed within the body of the paper as soon after their first mention in the text as possible
- Use the table functions command for all tables
- Center page numbers at the bottom of all pages
- Manuscript title should be centered and all caps
- Place abstract after manuscript title - 400 words maximum
- Main body of manuscript should come immediately after the abstract
- Suggested Paper Sections: Introduction/Theoretical Framework, Purpose(s)/Objective(s), Methods/Procedures, Results/Findings, Conclusions/Recommendations/Implications, References

STYLE: APA 4th Edition

DEADLINE: Postmarked by June 1, 2001

MAIL TO: Joe W. Kotrlik/Michael F. Burnett
School of Vocational Education
Louisiana State University
Baton Rouge, LA 70803-5477

MORE INFO: Joe Kotrlik: kotrlik@lsu.edu, 225.578.5753, Fax: 225.578.5755
Michael Burnett: vocbur@lsu.edu, 225.578.5748, Fax: 225.578.5755
ATTACHMENT #5
ASSOCIATION FOR INTERNATIONAL
AGRICULTURAL AND EXTENSION EDUCATION

Announces a call for posters for
Approaches and Partnerships for Sustainable Extension and Rural Development
At the 18th Annual Conference of AIAEE
Elangeni Holiday Inn, Durban, South Africa
May 26 through May 30, 2002

AIAEE is accepting poster proposals related to issues in international agricultural and extension education. Topics related to the 2002 conference theme are encouraged, but all submissions will be given full consideration.

Purpose
To present visually a concept or idea that reflects innovative models of research, educational programming, or evaluation. Each poster proposal requires the following:

1. A title page with name(s) of author(s) including complete contact information (address, telephone number, fax number, and e-mail address).
2. A one-page abstract that includes introduction, purpose of poster, major points of information to be shared, conclusions, and educational importance.

Poster guidelines
1. Maximum size 4' x 6' (122 cm x 183 cm)
2. Posters will be on display one entire day of the conference; presenters are expected to be present during group times set aside for viewing posters and during an evening reception.
3. Must be an AIAEE member to submit a proposal--see below for membership information.

Awards are given for the top three posters. Criteria and points used to judge the selection of outstanding posters are:

- Technical content or information: 20
- Originality or innovativeness: 20
- Creativity of presentation or ideas: 15
- Conveys message (easily understood): 15
- Importance of topic: 15
- General appearance (5 points each); 1) well planned design, 2) easily read and neat, and 3) well constructed: 15

Total possible: 100

Deadline for submission is October 25, 2001.

Send three (3) hard copies or one (1) electronic copy of the proposal to:
Dr. Jimmy R. Lindner, Department of Agricultural Education, Texas A&M University, College Station, TX 77843-2116 USA. (Phone: 979-458-2701; Fax: 979-845-6296; E-mail j-lindner@tamu.edu) Contact Dr. Lindner for more information.

For membership information, contact Dr. Steve Jones, AIAEE Treasurer, MAST International, University of Minnesota, 240 Vo Tech Building, 1954 Buford Avenue, St. Paul, MN 55108-6078 USA (Tel: 612-625-1287; Fax 612-625-7031. E-mail: sjones@coa1.agoff.umn.edu. That is a "one" in his e-mail address not an "ell").
ASSOCIATION FOR INTERNATIONAL AGRICULTURAL AND EXTENSION EDUCATION

Announces a call for carousel roundtable discussions for

**Approaches and Partnerships for Sustainable Extension and Rural Development**

at the 18th Annual Conference of AIAEE
Elangeni Holiday Inn, Durban, South Africa
May 26 through May 30, 2002

AIAEE is accepting proposals for refereed abstracts at carousel roundtables related to issues in International agricultural and extension education. Topics related to the 2002 conference theme are encouraged, but all submissions will be given full consideration.

**Purpose**
To present, using a written and oral format, abstracts of research, theoretical advances, or explanations of an issue for discussion.

**Parameters**
Carousel roundtables are small group presentations of abstracts. Each presentation is allotted 15 minutes. Presenters will lead the carousel roundtable discussion six times to rotating groups of AIAEE members and conference attendees during a time set aside for carousel presentations. Copies of the one-page abstract should be available at the presentation. Presenters must be AIAEE members to submit a proposal--see below for membership information. New members are encouraged to submit proposals.

Each carousel roundtable proposal requires the following:
1. A **title page** with name(s) of author(s) including complete contact information (address, telephone number, fax number, and e-mail address).
2. A **one-page abstract** that includes introduction, method, major points or information to be shared, conclusions or lessons learned, and educational importance. (10-point font is acceptable).

More than one carousel roundtable proposal may be submitted.

**Deadline for submission is October 25, 2001.**

Send one (1) electronic copy of the proposal or three (3) hard copies to:
Dr. Jimmy R. Lindner, Department of Agricultural Education, Texas A&M University, College Station, TX 77843-2116 USA. (Phone: 979-458-2701; Fax: 979-845-6296; E-mail j-lindner@tamu.edu) Contact Dr. Lindner for more information.

For membership information, contact Dr. Steve Jones, AIAEE Treasurer, MAST International, University of Minnesota, 240 Vo Tech Building, 1954 Buford Avenue, St. Paul, MN 55108-6078 USA (Tel: 612-625-1287; Fax 612-625-7031. E-mail: sjones@coa1.agoff.umn.edu. That is a "one" in his e-mail address not an "ell").