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Note from the Editor:

One of the most popular sessions at the annual conference of the Society for Information Technology and Teacher Education is the editorial panel. The editors of the SITE journals and their counterparts at other educational technology periodicals review the background, intended audience, and submission protocols for their respective journals. These sessions are popular because they ensure that the publication efforts of participants are appropriately directed.

The following article by Niederhauser, Wetzel, and Lindstrom provides an extension of these editorial panels by including in-depth information about publishing that would apply to any peer-reviewed academic journal. This information should be invaluable as a follow-up for participants who attend these sessions at SITE, as well as to graduate students and others who may not yet have extensive publishing experience.

We envision this initial article as a base document that can be supplemented by other editors, changing over time to reflect the changing nature of the field.

From Manuscript to Article: Publishing Educational Technology Research

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Abstract

The publishing process is often challenging for new educational technology scholars. This article provides insights into the publication process to help them understand and to increase the chances that their work will be accepted for publication in high-quality peer-reviewed journals. Suggestions for developing a program of research, a description of the peer-review process, a table of potential publication outlets, and examples of correspondence with editors are included to help demystify the process.

Publishing one's research in blind peer-reviewed (or peer-refereed) academic journals is often an intimidating task for new educational technology scholars. Many emerging scholars have had limited opportunities to write for a professional audience during their graduate careers, and the experiences they have had may not transfer to the new setting. Proposals submitted for conference presentations are typically brief, receive little feedback for revision, and are not held to journal publication standards. Actual papers presented at conferences are typically published in proceedings or as an ERIC document without additional review or editing. Further, the traditional five-chapter thesis or dissertation tends to be unsuitable for publication—those who do try to publish it as a journal article often find themselves rewriting the entire manuscript. Thus, few educational scholars fully understand the blind peer-reviewed publication process when they enter the profession.

Becoming a proficient academic scholar, however, is a developmental process. Participating in the knowledge sharing process in an educational community can be an academic's most important and rewarding work. Publication is the mechanism that advances the field and is an immediate concern for assistant professors in the "publish or perish" world of the academy. There are many options available for publishing one's work, including reviewed and nonreviewed research, theoretical, or practice-based outlets, as well as book chapters and monographs. However, publishing in blind peer-reviewed journal articles tends to be viewed as most desirable for those judging work for promotion decisions. The purpose of this article is to help demystify blind peer-reviewed

publication by providing insights that will help newcomers participate successfully in the process.

Conceptualizing a Program of Research

Publishing an article in a blind peer-refereed journal begins well before you package up the manuscript and send it off to an editor. Two key elements in the publishing process are identifying a timely and important topic and grounding the work in an appropriate literature base. Considering the current issues in the field and developing interesting and insightful ways to address them allows you to plan a *program of research* strategically—a systematic series of research projects around a topic or issue.

Engaging in programmatic research can further your career in several ways. Focusing in an area allows you to become expert in a body of literature and gain insights into the complexities of a field of study. Developing a program of research allows you to become intimately familiar with the relevant discussions in the field that can be used to guide your work. Further, familiarity with a focused area of literature allows you to be efficient, in that developing expertise in an area means you know the major findings, issues, and conclusions in the literature that provide the conceptual framework for all of the publications in your program of research. Sustaining a program of research can support the development of coherence and sophistication in your writing as you integrate findings from earlier research into the conceptualization and design of new projects.

Selecting an Appropriate Outlet

Developing a well-conceptualized program of research can be accomplished only by spending considerable time reading and reflecting on relevant literature. Reading and reflecting on the literature provides an additional benefit for savvy researchers in that it provides an excellent opportunity to assess the various characteristics of potential outlets for their work. Some blind peer-reviewed journals primarily publish empirical research articles, while others provide an outlet for more conceptual, theoretical, or descriptive articles. Becoming familiar with the various journals in the field enables you to identify appropriate outlets early in the research process and design and develop your articles to fit. A good strategy is to target a specific journal as your first choice but to also have one or two preferred journals as backup choices in case your manuscript is not accepted in your primary journal. When selecting preferred journals, choose ones that have a similar focus, audience, structure, and reference style to your primary journal. Doing so allows a manuscript to be easily revised and submitted to preferred journals if necessary. A list of journals that publish educational technology research with editor contact information, general information, and author guidelines are included in Table 1.

In addition to the nature of the articles published in a journal, another important consideration in choosing an appropriate outlet is acceptance rate. A recent report indicated that three fourths of the journals surveyed accepted more than 10% of the unsolicited manuscripts received, and over half accepted at least 30%, with some acceptance rates as high as 60% (Henson, 2001). The same data indicated that chance of acceptance improved dramatically when authors were advised to revise and resubmit their work. Average initial acceptance was 32.8%, but increased to 78.1% for reevised and resubmitted manuscripts. So look into acceptance rates and choose a journal that gives you a reasonable chance of being accepted, and if you are invited to resubmit, it is well worth the effort to address the reviewers' and editors' concerns and do so.

Strategic Publication

There are several important considerations to which authors must attend when writing for publication. At one level it seems simple to develop and conduct a study, then produce a manuscript. However, doing this in a thoughtful and systematic manner greatly increases the chances of developing a body of work in blind peer-reviewed journals.

Developing Studies

With a carefully thought-out program of research aimed at answering timely and relevant questions and a good sense of potential outlets, you are ready to begin designing research projects for publication. Given the extended turnaround time for many journals, it is advisable to have several projects in varying stages of development at any given time. That is, designing and collecting background information on one, collecting and analyzing data on a second, and preparing the final draft for submission on a third. This strategy creates a "pipeline," with new projects continuously going in and completed projects going out. This can result in a steady stream of publications—a great advantage for anyone seeking tenure.

Conceptualizing a series of research projects to illuminate an important issue in the field is valuable for organizing and guiding one's work; however, programmatic research is rarely a linear and systematic process. Rather, programmatic research tends to be both recursive and reflective. Working through a project and writing it up is often a learning experience for researchers. As problems and inconsistencies between the researcher's basic assumptions and the literature (or data) emerge, the thoughtful scholar must accommodate them by adjusting the research program. Interesting questions that arise in one project may lead to questions that should be addressed through additional (perhaps unanticipated) research, while findings from another may lead to abandoning work that no longer appears relevant. So, although it is clearly desirable to have a general plan and direction for the research program, it is also important to be flexible enough to allow research projects to reflect the development and growth of researchers as they engage in the process.

Conducting Research

While specific suggestions for conducting research are well beyond the scope of this article, some general considerations may be helpful. Well-designed research has a clear theoretical framework that drives the program of research and runs through all aspects of the work. As mentioned earlier, ground the study in a relevant literature base. Foresight and careful planning and designing of the research project enables researchers to systematically collect and organize data and increases the likelihood that the research will address its purpose. Decide on a methodology for collecting *and analyzing* data before you start your research. Waiting to decide on analysis techniques until after data are collected can be disastrous. You may find that the data you collected cannot be analyzed in ways that address your research questions—forcing you to revise the entire study retrospectively or abandon the project altogether. In fact, it is generally wise to decide the types of analyses needed to address the research questions, then decide the types of data needed for the analyses and develop instruments that will yield the necessary data. Whether planning a quantitative analysis and designing instruments that will provide interval data for parametric tests or choosing to use observations, interviews, or questionnaires to provide necessary data for qualitative methods, anticipating data requirements and analysis strategies are key.

Writing a Research Study

In many cases producing a blind peer-reviewed article is accomplished as a collaborative effort. Research issues and ideas are discussed with colleagues, teams may be involved in design, data collection, and analysis, and different individuals may take responsibility for the actual writing of the manuscript. This raises the issue of which participants should receive credit for authorship and the order in which authors should be listed. The American Psychological Association publication manual provides some guidelines for establishing authorship, including each listed person's contribution with respect to writing, conceptualization, design, analysis, and interpretation. Lesser contributions may be acknowledged in a note. In general, it is wise to discuss order of authors at the beginning of the project and allocate roles and tasks accordingly—then revisit authorship periodically if roles change. An open and frank discussion of authorship before the manuscript is sent to a journal provides closure and is a good opportunity to discuss percentage of contribution of each author (information requested by some institutions for faculty review).

Several important issues s hould also be considered when writing the paper. The first issue relates to "fit" (making your manuscript fit with other articles in the target journal). Use articles that were accepted to your target journal to guide your writing. Having identified a target journal, write the manuscript to be consistent with articles that have appeared in the journal relative to the types of issues addressed, nature of typically reported research (e.g., conceptual or theoretical reviews, empirical scientific studies, etc.) types of analyses (e.g., quantitative, qualitative, level of sophistication, etc.), tone (e.g., conversational, formal, use of first/third person, etc.), and perceived focus and level of expertise of the audience (e.g., special educators, teacher educators, practitioners, etc.). Henson (2001) recommended writing "a little less esoterically and a little more clearly than the articles you read in [your targeted journals]" (p. 768). Additional resources for writing are included in the References and Recommended Readings section at the end of this article. Use the journal website (see Table 1) to obtain copies of author guidelines and the form that reviewers use to evaluate manuscripts. Some editors even provide detailed descriptions of their journal's review procedures (Davis, Dillon, & Selinger, 1999). Use these documents to guide your writing and conduct a final self-review of the manuscript before submitting. Many editors welcome questions from potential authors regarding publication timeline, upcoming special issues, and whether the article content is suitable for his or her journal. This initial contact can save time and frustration for both authors and editors.

A second issue concerns the organizational structure of the manuscript. Once again, use examples of articles in the target journal as a guide. First and foremost, use the journal's web page to identify the required style guide (e.g., APA, Chicago, etc.) and follow the conventions of that style. Becoming intimately familiar with the major styles and using them consistently is time well spent. Having to go back and revise in-text citation, references, tables, figures, and headings is a time consuming and frustrating p rocess. It is wise to look to target journal articles for headings conventions and descriptive elements, like the ways authors provide subject demographic information or describe materials or analysis techniques. Incorporate these features into your manuscript—if they worked for previously published authors, they can work for you, too.

Another important issue in the writing process involves critical review and revision of the manuscript *before* it is submitted to a journal. Colleagues can often provide extremely useful feedback on a manuscript that could make the difference between a positive or negative initial review. Give your colleague a copy of the guidelines from the webpage with the manuscript. Do not limit yourself to collegial reviewers found at your home

institution. Look across institutions and disciplines for colleagues that may provide interesting and insightful reviews from a variety of perspectives. Select colleagues who have been successful in their publishing efforts—especially those who have published in the target journal. It is important to remember that you, as the lead author, must ultimately decide whether and how to incorporate suggested revisions.

Submitting the Manuscript

Finally, after developing a program of research, targeting an appropriate journal, designing and conducting a research project, and writing it up, you are ready to prepare the final draft of the manuscript and send it to an editor. Note that a manuscript can only be submitted only to one journal at any given time. You may submit your manuscript to a different journal after receiving a negative review (more on this later) or withdraw the manuscript from consideration and submit it somewhere else, but any given manuscript may not be under review by two journals at once.

Journals have different requirements for publication, so visit the webpage and review submission guidelines carefully. One or more of the submitted copies must have identifying information removed to facilitate the "blind" aspect of the review process. Do not include author names or affiliations on the title page, as headers or footers, or in acknowledgements. It is typically not necessary to remove author names in citations or the reference list but some journals do require it.

Include a cover letter to introduce yourself, provide contact information and give a brief overview of the manuscript (see Appendix A). Some journals require additional information, like number of pages, word count, numbers of figures and tables, a statement that the work is not currently under review with any other publication outlet, that it has not been previously published, and/or if treatment of participants was in accordance with ethical standards for research. Check the webpage and include this information only if requested.

A growing number of journals require an electronic version of the manuscript—submitted either on a disc or online. This allows for easy web-based or email distribution of manuscripts for review and in-text editing of the document for providing comments for the author, adding line numbers, removing identifying information, etc. Other journals accept hardcopy only and require multiple copies with identifying information removed. Again, attend to journal submission guidelines carefully. Failing to follow them explicitly may delay the entire publication process.

The Blind Peer-Review Process

The blind peer-review process begins when your manuscript is received by a journal editor. Although it may vary somewhat among journals, the overall process remains fairly consistent. Conceptually, the process was designed to serve as a neutral filter to isolate the quality of ideas expressed in the publication from the reputation and social/political connections of the author—making it the quality of ideas and argument that determine which manuscripts are accepted and published in blind peer-reviewed journals. Two aspects of the blind peer-review process contribute to this purpose. First, submitted manuscripts are peer reviewed—that is, members of a "review board" consisting of experts in the field evaluate the work and decide whether it is suitable for publication and, if it does have potential, make recommendations about how it might be revised to improve quality. Typically, three reviewers evaluate each manuscript. The second aspect centers on the fact that the process is "blind." This means that names of authors are not

communicated to reviewers and identifying information is removed from the manuscript. This process provides opportunities for all scholars to participate in the academic discourse, and publication becomes an issue of "what you know," rather than "whom you know."

Initial Review

The first step in the process is the initial review. When an editor receives a manuscript, it will be read to determine if it is suitable for the journal and of appropriate quality to be sent out for review. Typically, the editor is looking for fit with the journal's mission, potential contribution to the field, quality of research, and quality of writing. If any of these characteristics are deemed inadequate, the manuscript may be returned to the author without further review (see Appendix B). Journals have different policies with respect to this stage of the review process. Some editors tend to send most manuscripts out to reviewers, allowing the review board to have input on received manuscripts; others are more selective in what they send out, trying to respect their reviewers' time by sending only manuscripts that have a reasonable chance of acceptance.

When an editor sends a manuscript out for review, several actions occur. One important task is deciding which review board members are best suited to evaluate a given manuscript. When a reviewer joins the board, and periodically thereafter, he or she submits a vitae and identifies areas of expertise. Using this information and interactions with reviewers over time, the editor selects a team of reviewers (again, typically three reviewers per manuscript). At times, an editor may choose to send a manuscript to someone who is not a member of the review board. This may occur when the editor asks a scholar who has worked extensively in the field in which the submitted research is situated to review or perhaps when an individual is being considered for membership on the board. Finally, the manuscript is sent to reviewers. This is increasingly accomplished by electronic means, but some journals still mail hardcopy manuscripts out to reviewers.

Blind Peer-Review

Each reviewer receives a manuscript, a review rubric (see Appendix C), and request from the editor indicating the date by which the review must be returned. Typically a reviewer is given 4 to 6 weeks to complete a review. If the review cannot be completed in the given time frame, editors request that they be informed immediately so they can send it to a different reviewer. In some cases reviews are not completed by the return date—prompting a reminder to the reviewer from the editorial team.

While individual reviewers may conduct reviews in different ways, we can provide insights to our experiences with the review process. A 2-hour time block is typically sufficient for the initial reading and annotation of the manuscript. Writing extensive comments in the margins provides information that the reviewer uses when preparing the final review that goes back to the editor. A key part of the task is identifying examples of criticisms of the article—like highlighting a block of text and writing "unsupported conclusion" in the margin or noting relevant literature that is not addressed. From these margin notes, themes begin to emerge that frame the review of the manuscript.

In reading the manuscript, the items identified in the journal rubric focus the critique. However, reviewers must also have a general framework or "mindset" that guides their thinking. A primary question that reviewers often ask themselves about all manuscripts is, "Does this work make a contribution to the field?" The reviewer must make a judgment about whether the audience for the particular journal will find the topic relevant,

interesting, and important. If a manuscript does not meet this criterion, it is difficult to justify accepting it. On the other hand, if the topic is relevant, interesting, and important, reviewers are much more willing to spend time and energy making suggestions to help make the paper publishable.

It is also important to consider whether the topic is grounded in an appropriate literature base. Does the literature provide a rationale for why the work is important? Set up a logical argument or series of questions that the research addresses? Establish a context for examining the results of the work? Address the appropriate bodies of literature that are related to the topic? A well-developed concise literature review helps convince the reader that researchers are knowledgeable about others' work in the field, have integrated their own work with it, and are careful, thoughtful, and reflective about their work.

A key element in many manuscripts is the methodology section. Although some forms of writing do not require an explicit methodology section, it is included in quantitative and qualitative research studies. The methodology section provides insights into how and with whom the research was conducted. This allows reviewers to judge whether generalized claims are warranted, if the research was conducted in a rigorous manner, and if appropriate analyses were conducted. Use examples from your target journal, but in general, it is wise to include standard headings for quantitative and qualitative research projects (see Appendix D) and include focused and relevant information under each. Reviewers do not like having to look for specific information because proper headings are not used appropriately. The key is to provide the relevant information without including trivialities, like the name of the statistics package used for the analysis. A clear, explicit, and detailed methodology section is essential for a positive review.

In describing analysis and results be sure to follow the conventions of the required style guide, as described in the specific journal's author guidelines (e.g., APA, Chicago, etc.). Reporting quantitative analyses are especially challenging because of the specified format and technical information required. Certain information must be provided to allow readers to check the accuracy of statistics and understand the magnitude of the findings (e.g., effect size). Always ask your most knowledgeable methodological colleague to read and give feedback with an eye to methodology. Technical flaws in analysis and results have resulted in the rejection of countless manuscripts.

The discussion/conclusion should be insightful, tied to the literature base, and supported by the data. A "tight" manuscript has a coherence and flow that runs through it from start to finish. There is a focus and purpose that is clearly stated at the beginning, is developed and contextualized through literature, provides a foundation for the research, and guides the analyses and reporting of results. Only make claims and draw conclusions that are explicitly supported by your data. When this is done properly, it culminates in a well-framed discussion/conclusion that speaks to the topic under study and is supported by the logical arguments and findings that came before.

Reviewers may include additional comments concerning details, like typographical and grammatical errors and incorrect use of reference style. Numerous examples of errata may cue reviewers to have concerns about other aspects of the work. To avoid this, carefully proofread and edit the document before sending it to an editor.

When the initial reading of the article is complete, reviewers finish the review by scoring the manuscript on the review rubric and writing a rationale for their decision (see Appendix E). The rubric often provides space for the reviewer to rate certain aspects of the manuscript (e.g., value to the field or profession, adequacy of research method, etc.) and to make a final recommendation about whether to publish the manuscript. The final

recommendation typically includes four options: reject, revise and resubmit, accept with major revisions, and accept with minor revisions. What these options mean to a submitting author is discussed in the following section. If the manuscript is deemed potentially publishable, the reviewer may also provide specific suggestions for revising the manuscript. The final review is returned to the editor, and reviews from the three review board members are used to make the final decision.

Editor's Decision

When all manuscript reviews have been received, the editor and/or editorial team makes a decision about whether to publish the article. The editor communicates the decision to the author in a letter (see examples below). This letter includes the editor's decision about whether to publish the manuscript, comments about the manuscript that support the decision, and specific guidelines for revision (where appropriate). Reviewers' comments are also included—either in original form or incorporated into the editor's remarks. The nature of the decision determines the content of the letter. The editor will include detailed and specific information about the concerns that must be addressed if the author is asked to revise and resubmit or if major revisions are required. Information on the conditions for acceptance may also be included—such as whether one or more reviewers will be involved in further review or if the editor will be responsible for the final decision.

The first option is to reject the reviewed manuscript (see Appendix F). Manuscripts may be rejected for a variety of reasons. For example, the article may not fit within the scope of the journal, the research may be deemed fundamentally flawed, the work may not be at an appropriate level of sophistication (e.g., a highly theoretical manuscript submitted to a journal that typically publishes practical articles). The best strategy when receiving a reject decision is to consider carefully the editor's rationale for rejecting the manuscript, then decide if it is "fixable." If you decide it is, attend to all of the editor's comments and submit it to one of your other preferred journals. Try not to be too discouraged—everyone who publishes extensively receives rejections during the course of his or her career.

Another option is for the editor to ask the author to revise and resubmit the manuscript (see Appendix G) . This decision means the editor has identified one or more areas needing significant improvement. If the author's improvements are deemed adequate, the manuscript may be suitable for publication. Typically, the manuscript will be sent out for another round of review, sometimes to the same reviewers, sometimes to new reviewers. As mentioned earlier, the likelihood of publication for a manuscript that receives a revise and resubmit designation increases dramatically. However, acceptance of the manuscript for publication is not a sure thing. Take extra care to address fully the editor's concerns and explain all of the changes made to the document when you resubmit (see Resubmission section).

The next level, conditional accept, or accept with major revisions, is a fundamentally different decision (see Appendix H). The manuscript has been conditionally accepted for publication and will likely be published, assuming you address the editor's concerns in a satisfactory manner. Accepted manuscripts may be sent to one or more reviewers to ensure their concerns have been sufficiently addressed. The author works with the editor until the editor is satisfied that all of the reviewers' concerns have been addressed.

Finally, the editor may make a decision to accept the manuscript "as is" (a rare occurrence) or accept with minor revision (see Appendix I). This means there may be some wording changes or minor points to address, but the article is essentially ready for publication.

From start to finish, this process can take from several months to over a year. Many journals have extensive backlogs of manuscripts waiting for review. Contact the editor to inquire about the current time frame for review and publication. Be aware, however, that estimates of how long the review process will take are only the editor's best guess. There are several factors in the process that can lead to delays. For example, reviewers may not return manuscripts by the specified date, or even more problematic, may return the article unreviewed after a period of time, necessitating identification of another reviewer and resetting of the timeline. Most editors do their best to process articles in a timely fashion. If you must contact an editor about the status of your manuscript, be polite and understanding. They tend to be very busy people, many issues are out of their control, and editing the journal is probably an unpaid service activity.

The Revision Process

Revising the manuscript is a critical aspect of the publication process. Whether you received a "revise and resubmit" or "accept with revision" letter, the key is to address clearly, completely, and systematically all of the editor's concerns. Focus on the editor's letter. What specifically is being asked of you? If the editor lists certain points to be addressed and refers to the comments made by a specific reviewer, focus your efforts in those areas. In addition, be sure to read all reviewers' comments and attend to those that are relevant and that improve the quality of the manuscript. Be sure to keep track of every correction and change you make to the manuscript.

It is not necessary to accept all of the editor and reviewers' recommendations and make the suggested changes; however, they must all be *addressed.* It may be that a reviewer misunderstood your point and suggested a change based on that misunderstanding. When this occurs, it is appropriate to state that there was a misunderstanding and revise the manuscript to clarify whatever led to the misunderstanding. If the reviewer did not understand your point, chances are other readers will have the same problem.

Colleagues can be a great help in providing feedback and helping ensure that concerns have been addressed. Colleagues may be asked to review the editor's concerns and read the manuscript with an eye toward whether they have been addressed. Be conscientious about this stage of the process. In the case of a revise and resubmit decision, this is your best, and often last, chance to convince the editor that the manuscript is worthy of publication.

Resubmission

When revisions are complete write a letter detailing exactly what was done to address the editor's concerns (see Appendix J). The more explicit you are in this letter the better. Start with what you see as the major issues that needed to be addressed and explain clearly and explicitly what you did to address them. Link your comments to specific sections of the manuscript, so the editor can quickly and easily locate revisions and see what was done. You may want to highlight added text by making it a different color. The purpose of this letter is to draw attention to the specific ways you addressed the editor's concerns.

If the revised manuscript is accepted, this is your last chance to make changes to the content of the manuscript. What is included in this draft is what will appear as the published article. The editor will do a final read-through for mechanical errors, but the content is set. If you want to develop a point a little more fully or include that recent citation that just came out, you must do it at this stage of the process.

Editing Galley Proofs

Galley proofs (or galleys) are the final "typeset" version of the manuscript that will appear in the journal—the editor's final draft. The final step in the publication process is the galley proof correction stage. Not all journals use galleys, but those who do provide an opportunity for the author to give the article a final read to make minor corrections. The author must understand that appropriate corrections at this stage include only things like typographical errors and omissions. Substantive changes are typically not permitted and insisting on changes at this point may be cause for the editor to push the manuscript to a later publication date and/or charge the author for the additional work required.

Conclusion

Seeing your work appear in a blind peer-reviewed journal is a gratifying experience. Participating in the academic discussion through research publication is at the heart of our profession. For many, the publication process takes the form of an apprenticeship. In graduate programs students work with faculty members and more experienced students to participate in research projects and engage in the writing process. Over time, these graduate students begin to design, conduct, and produce their own publishable research.

Participation in the blind peer-review process can be invaluable in helping new researchers gain insights that will benefit their own publishing efforts. According to Caulkins (1986), people who are insiders to the writing process make important connections that provide a different level of understanding, enabling them to become more effective writers. Although her work was tied to preschoolers and emerging writers, Caulkins' observations are equally relevant at this level of the writing process. Conference organizers are always recruiting qualified members to review conference proposals—email the organizations for more information and to volunteer to review (SITE: conf@aace.org; NECC: iste@iste.org; AERA: 2004annualmtg@aera.net). As indicated previously, some journals occasionally use guest reviewers to review manuscripts. You may want to contact editors of journals in your area of expertise to inquire about such opportunities. Once you have developed some experience as a reviewer, look for periodic calls to add members to editorial review boards of journals in your field.

Finally, begin early and aim high. The number of recent graduates applying for educational technology positions at research-intensive universities with conference proceedings as their only publications is surprising. Others publish work from their master's degree program and have several blind peer-reviewed publications by the time they apply for their first tenure track position. Students who have engaged in the publication process are better prepared to continue publishing throughout their careers. Target the top journals in your field, conduct rigorous research, produce high-quality manuscripts, and submit your work to blind peer-reviewed journals. Success requires knowledge, commitment, time, and effort.

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Henson, K. T. (2001). Writing for professional journals: Paradoxes and promises. *Phi Delta Kappan, 82*(10), 765-768.

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Other Recommended Readings

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Table 1. Journals That Publish Articles on Educational Technology

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
Contemporary Issues in Technology and Teacher Education (online)	Technology and Teacher Education	8 weeks	Journal Overview Author Guidelines Editor: Glen Bull University of Virginia, USA E-mail: gbull@virginia.edu	2,000	Association for the Advancement of Computing in Education
Journal of Computing in Teacher Education	Technology and Teacher Education	8-12 weeks	Journal Overview Author Guidelines Editors: Ann Thompson and Denise Schmidt Iowa State University, USA E-mail: eat@iastate.edu E-mail: dschmidt@iastate.edu	1,500	International Society for Technology in Education
Journal of Technology and Teacher Education	Technology and Teacher Education	8 weeks	Journal Overview Author Guidelines Editor: Debra Sprague George Mason University, USA E-mail: Dspragu1@gmu.edu	1,500	Association for the Advancement of Computing in Education
Technology, Pedagogy and Education	Technology and Teacher Education	12 -18 weeks	Journal Overview Author Guidelines (select *How to contribute* from menu) Editor: Avril Loveless University of Brighton, UK	330	Triangle Journals

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			E-mail: ed-asst@tped.fsworld.co.uk		
Action in Teacher Education	Teacher Education	20 weeks	Journal Overview Author Guidelines Editors: Priscilla Griffith and John Chiodo University of Oklahoma E-mail: pgriffith@ou.edu E-mail: jjchiodo@ou.edu	3,000	Association of Teacher Educators
Journal of Teacher Education	Teacher Education	15-20 weeks	Journal Overview Author Guidelines Editor: Marilyn Cochran-Smith Boston College, USA E-mail: cochrans@bc.edu	9,000	American Association of Colleges of Teacher Education
Teaching and Teacher Education	Teacher Education	12 weeks	Journal Overview Author Information (select *Guide for authors* from menu) Editors: Sara Delamont, Lesley Pugsley and John Fitz Cardiff University, UK E-mail: TATE@educ.canterbury.ac.nz	N/A	Elsevier Publishing
Educational Technology Research and Development	Educational Technology	8-16 weeks	Journal Overview (scroll down to *ETR&D*) Author Guidelines Editor: Steven Ross	5,000	Association for Educational Communication and Technology

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			University of Memphis, USA E-mail: smross@memphis.edu		
Educational Technology Review (online)	Educational Technology	8 weeks	Journal Overview Author Guidelines Editor: Gary Marks Association for the Advancement of Computing in Education, USA pubs@aace.org	N/A	Association for the Advancement of Computing in Education
Education and Information Technologies	Educational Technology	N/A	Journal Overview Author Guidelines (select *Author Instructions* from menu) Editor: Deryn Watson Kingís College London, UK E-mail: deryn.watson@kcl.ac.uk	N/A	IFIP Technical Committee on Education
Information Technology in Childhood Education	Educational Technology	N/A	Journal Overview Author Guidelines Editor: Daniel Shade University of Delaware, USA E-mail: pubs@aace.org	1500	Association for the Advancement of Computing in Education
Interactive Multimedia (online)	Educational Technology	4 - 24 weeks	Journal Overview Author Guidelines Editor: Jennifer Burg	N/A	Wake Forest University

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Wake Forest University, USA E-mail: burg@mthcsc.wfu.edu		
International Journal of Educational Technology (online)	Educational Technology	2 weeks	Journal Overview Author Guidelines Editor: James Levin University of Illinois, Urbana-Champaign, USA E-mail: IJET@lists.ed.uiuc.edu	3,000	Curtain University of Technology and University of Illinois at Urbana-Champaign
IT Journal Online (online)	Educational Technology	4 weeks	Journal Overview Author Guidelines Editor: Susannah McGowan University of Virginia, USA E-mail: stm3t@virginia.edu	N/A	University of Virginia
Journal of Computer Assisted Learning	Educational Technology	6 weeks	Journal Overview Author Guidelines Editor: Charles Crook University of Lancaster, UK E-mail: C.K.Crook@lboro.ac.uk	N/A	Blackwell Science Ltd
Journal of Computer-Mediated Communication (online)	Educational Technology	12 weeks	Journal Overview Author Guidelines	N/A	International Communication Association

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Editor: Susan Herring Indiana University, USA E-mail: jcmc@steel.ucs.indiana.edu		
Journal of Educational Computing Research	Educational Technology	6-8 weeks	Journal Overview Author Guidelines Editor: Robert Seidman Southern New Hampshire University, USA E-mail: r.seidman@snhu.edu	N/A	Baywood Publishing
Journal of Research on Technology in Education	Educational Technology	8 -12 weeks	Journal Overview Author Guidelines Editor: Lynn Schrum University of Utah, USA E-mail: jrte@iste.org	3,000	International Society for Technology in Education
Journal of Technology, Learning and Assessment (online)	Educational Technology	8 -10 weeks	Journal Overview Author Guidelines Editor: Michael Russell Boston College, USA E-mail: russelmh@bc.edu	Average download for an article is 2,000 times	Technology and Assessment Study Collaborative and Center for the Study of Testing, Evaluatio n and Educational Policy
Research in Learning Technology	Educational Technology	6 -8 weeks	Journal Overview Author Guidelines	N/A	Carfax Publishing, Tayor and Francis Group

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Editors: Grainne Conole University of Southampton, UK Martin Oliver University College London, UK Jane K Seale University College London, UK E-mail: gcconole@soton.ac.uk E-mail: martin.oliver@ucl.ac.uk E-mail: jks1@soton.ac.uk		
Meridian: A Middle School Computer Technologies Journal (online)	Educational Technology	4 weeks	Journal Overview Author Guidelines Editors: Shannon White and Beth Snoke North Carolina State University, USA E-mail: shwhite@unity.ncsu.edu E-mail: beth_snoke@ncsu.edu	450 readers per day	Graduate student run journal/ Not affiliated with any professional organization
Journal of Computers in Mathematics and Science Teaching	Educational Technology: Mathematics and Science	8 weeks	Journal Overview Author Guidelines Editor: Gary Marks Association for the Advancement of Computing in Education, USA E-mail: pubs@aace.org	1500	Association for the Advancement of Computing in Education
Journal of Educational Multimedia and Hypermedia	Educational Technology: Multimedia and Hypermedia	N/A	Journal Overview Author Guidelines	1500	Association for the Advancement of Computing in Education

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Editor: Gary Marks Association for the Advancement of Computing in Education, USA E-mail: pubs@aace.org		
Educational Media International	Educational Technology: Media	8-12 weeks	Journal Overview Author Guidelines Editor: John Hedberg National Institute of Education, Nanyang Technological University, Singapore E-mail: jhedberg@nie.edu.sg	1,000 paper + 3,000 electronic Subscriptions	International Council for Educational Media
International Journal of Instructional Media	Educational Technology: Media	4-12 weeks	Journal Overview Author Guidelines Editor: Dr. Phillip J. Sleeman University of Connecticut, USA E-mail: PLSleeman@aol.com	N/A	Westwood Press Inc.
Journal of Interactive Online Learning (online)	Educational Technology: Media	4 weeks	Journal Overview Author Guideline Editor: Cynthia S. Sunal University of Alabama, USA E-mail: cvsunal@bama.ua.edu	9000	Association for the Advancement of Computing in Education
Journal of Interactive Learning Research	Educational Technology: Interactive Learning	N/A	Journal Overview	1500	Association for the Advancement of

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Author Guidelines Editor: Gary Marks Association for the Advancement of Computing in Education, USA E-mail: pubs@aace.org		Computing in Education
EDUCAUSE Quarterly (online)	Educational Technology: Higher Education	6-8 weeks	Journal Overview Author Guidelines Editor: Nancy Hays EDUCAUSE E-mail: eqeditor@educause.edu	8,500	EDUCAUSE Publications
American Journal of Distance Education	Open and Distance Education	24 weeks	Journal Overview Author Guidelines Editor: Michael Moore Pennsylvania State University, USA E-mail: mgmoore@psu.edu	1500 institutional subscriptions	The American Center for the Study of Distance Education
International Review of Research in Open and Distance Education (online)	Open and Distance Education	16-24 weeks	Journal Overview Author Guidelines Editor: Paula Smith Athabasca University, Canada's Open University, Canada E-mail: paulah@athabascau.ca	N/A	Athabasca University ñ Canadaís Open University
Journal of Distance	Open and Distance	N/A	Journal Overview (select *JDE Information* from menu)	N/A	Canadian Association

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
Education	Education		Author Guidelines (select *JDE Guidelines* from menu) Editor: Margaret Haughey University of Alberta, Canada E-mail: jde.cade@ualberta.ca		for Distance Education
Open Learning: The journal of Open and Distance Learning	Open and Distance Education	8-24 weeks	Journal Overview Author Guidelines Editor: Anne Gaskell The Open University in the East of England. UK E-mail: m.e.robertson@open.ac.uk	Available online in over 300 Universities world - wide.	Taylor and Francis Group
American Educational Research Journal	Education	12-24 weeks	Journal Overview Author Guidelines Editors (SIA section): Maenette K. P. Benham Michigan State University, USA Editors (TLHD section): Bruce Thompson Yvonna Lincoln Stephanie Knight Texas A&M University E-mail: aerjsia@msu.edu	20,000	American Educational Research Association
Educational Researcher	Education	12-24 weeks	Journal Overview Author Guidelines	20,000	American Educational Research Association

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Editor: Michele Foster Claremont Graduate University, USA E-mail: er0406@yahoo.com		
Educational Theory	Education	4 weeks	Journal Overview Author Guidelines Editor: Nicholas Burbules University of Illinois, Urbana-Champagne, USA E-mail: burbules@uiuc.edu	1800	Philosophy of Education Society and John Dewey Society
Elementary School Journal	Education	8-12 weeks	Journal Overview Author Guidelines Editor: Thomas Good University of Arizona, USA Contact: Gail M. Hinkel E-mail: hinkelg@missouri.edu	3,000	The University of Chicago Press
Harvard Educational Review	Education	8-12 weeks	Journal Overview Author Guidelines Editor: Editorial Review Board Harvard University, USA Contact: Laura Clos E-mail: laura_clos@harvard.edu	10,000	Harvard Graduate School of Education
Review of Educational Research	Education	N/A	Journal Overview	N/A	American Educational Research Association

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			Author Guidelines Editor: Margaret LeCompte University of Colorado, Boulder, USA E-mail: margaret.lecompte@colorado.edu		
Teachers College Record	Education	8-20 weeks	Journal Overview Author Guidelines (*Log-in to access author guidelines*) Editors: Lyn Corno, Clifford Hill and Amy Stuart Wells Teachers College, Columbia University, USA E-Mail: tcrecord@exchange.tc.columbia.edu	9,000 On-line Subscriptions	Blackwell Publishing
Cognition and Instruction	Educational Psychology	N/A	Journal Overview Author Guidelines Editors: Richard Lehrer Vanderbilt University, USA Annemarie Sullivan Palincsar University of Michigan, USA E-mail: dolan@erlbaum.com	N/A	Lawrence Earlbaum
Journal of Applied Behavior Analysis	Educational Psychology	9 weeks	Journal Overview Author Guidelines Editor: Wayne Fisher Marcus Institute, USA E-mail: JABA@Marcus.org	3700	Society for the Experimental Analysis of Behavior

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
Journal of Educational Psychology	Educational Psychology	10 weeks	Journal Overview Author Guidelines Editor: Karen Harris University of Maryland, USA E-mail: JedPsy@umail.umd.edu	5000	American Psychological Association
Contemporary Educational Psychology	Educational Psychology	12 weeks	Journal Overview Author Guidelines Editor: Patricia Alexander University of Maryland E-mail: pa34@umail.umd.edu	N/A	Elsevier Science
American Psychologist	Educational Psychology	4 weeks	Journal Overview Author Guidelines Editor: Norman Anderson American Psychological Association E-mail: APeditor@apa.org	113,000	American Psychological Association
Journal of Literacy Research	Content Area: Reading Education	12-16 weeks	Journal Overview Author Guidelines Editor: Wayne Linek Texas A&M University, Commerce, USA Email: WayneLinek@tamucommerce.edu	1,600	National Reading Conference

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
Reading Research Quarterly	Content Area: Reading Education	12 weeks	Journal Overview Author Guidelines Editors: Donna Alvermann University of Georgia, USA David Reinking Clemson University, USA E-mail: rrq@uga.edu	13,000	International Reading Association
Reading Teacher	Content Area: Reading Education	8-10 weeks	Journal Overview Author Guidelines Editors: Priscilla Griffith University of Oklahoma, USA Carol Lynch-Brown Florida State University, USA E-mail: mailto:pgriffith@ou.edu E-mail: lynchbr@coe.fsu.edu	63,000	International Reading Association
Scientific Studies of Reading	Content Area: Reading Education	N/A	Journal Overview Author Guidelines Editor: Frank Manis University of Southern California, USA Contact: Derek Fiore E-mail: derek.fiore@erlbaum.com	800	Society for the Scientific Study of Reading
Educational Studies in Mathematics	Content Area: Mathematics Education	N/A	Journal Overview (Choose *Aims & Scope* from menu) Author Guidelines (Choose *Author Instructions* from	N/A	Kluwer Academic Publishers

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			menu) Editor: Anna Sierpinska Concordia University, Canada E-mail: marie.sheldon@wkap.com		
Journal of Mathematical Behavior	Content Area: Mathematics Education	N/A	Journal Overview Author Guidelines Editors: Carolyn Maher Rutgers University, USA Robert Speiser Brigham Young University, USA E-mail: cmaher@rci.rutgers.edu E-mail: speiser@mathed.byu.edu	N/A	Elsevier Journals
Journal of Research in Mathematics Education	Content Area: Mathematics Education	12 weeks	Journal Overview Author Guidelines Editor: Edward Silver Brigham Young University, USA E-mail: Williams@mathed.byu.edu	7.000	National Council of Teachers of Mathematics
Electronic Journal of Science Education (online)	Content Area: Science Education	2 weeks	Journal Overview Author Guidelines Editor: John Cannon University of Nevada, Reno, USA	600	Association of Educators of Teachers of Science and National Association for Research on Science Teaching

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			E-mail: jcannon@unr.edu		
International Journal of Science Education	Content Area: Science Education	12 weeks	Journal Overview Author Guidelines Editor: John Gilbert Institute of Education, University of Reading, UK E-mail: j.k.gilbert@reading.ac.uk	1000	Taylor and Francis Group
Journal of Research on Science Teaching	Content Area: Science Education	16-20 weeks	Journal Overview Author Guidelines (Included in *Journal Overview*) Editors: Dale Baker and Michael Piburn Arizona State University, USA E-mail: jrst@asu.edu	1700	National Association for Research in Science Teaching
Exceptional Children	Special Education	12 weeks	Journal Overview Author Guidelines Editor: Steve Graham University of Maryland, USA E-mail: sg23@umail.umd.edu	60,000	Council for Exceptional Children
Journal of Learning Disabilities	Special Education	12 weeks	Journal Overview Author Guidelines Editor: Sharon Vaughn University of Texas, Austin, USA	3, 740	Pro-Ed

Journal Title	Types of articles	Review Time (Approximate)	Submission Information Journal Editor/s	Readership Indicator (Approximate)	Organization
			E-mail: SRVaughnUM@aol.com		
Journal of Special Education Technology	Special Education Technology	6-8 weeks	Journal Overview Author Guidelines Editors: Kyle Higgins and Randall Boone University of Nevada, Las Vegas, USA E-mail: higgins@nevada.edu E-mail: rboone@nevada.edu	2000 (Over 80,000 hits on online version in past 3 years)	Technology and Media Division of the Council for Exceptional Children.
Special Education Technology Practice	Special Education Technology	4-8 weeks	Journal Overview Author Guidelines Editor: Dave Edyburn, University of Wisconsin, Milwaukee, USA E-mail: editor@setp.net	100,000 hits over the last three and one-half years	Knowledge by Design, Inc

APPENDIX A

Robert H. Seidman, Editor
Journa1 of Educational Computing Research
New Hampshire College, Graduate School
2500 North River Road
Manchester, NH 03106-1045

Dear Professor Seidman,

I respectfully submit this manuscript for consideration for publication in the *Journal of Educational Computing Research*. The Influence of Cognitive Load on Learning from Hypertext is 22 pages long, with an additional four pages of references and two tables. This original research has not been previously published and the treatment of participants was in accordance with the ethical standards of APA. If you have any questions or comments, please contact me.

Sincerely,

_____

Address
Affiliation
University
City, State zip

Phone
Fax
Email address

APPENDIX B

Journal of Computing
in Teacher Education
_____

Dear _____:

We regret to inform you that your manuscript, "_____" was not accepted for publication in the Journal of Computing in Teacher Education. After a thorough review, the editors did not consider the content of this piece appropriate for JCTE.

If you and your co-authors wish us to reconsider this manuscript, we recommend the following revisions:

1. Rewrite the manuscript for a teacher educator audience; the manuscript addresses developing technology leaders at the K-12 level and doesn't include any ties with higher education;
2. Expand the final discussion to explicitly include lessons learned and implications beyond the _____ experience (e.g. implications for other districts and states);
3. Prepare the manuscript for blind-review (JCTE submission guidelines can be found at www.iste.org/jcte/);

The editorial board appreciates your efforts and hopes you will find this input helpful. Again, thank you for submitting this manuscript and we look forward to your continued interest in the JCTE.

Please do not hesitate to contact us if you have any questions.

Ann Thompson, Editor
Denise Schmidt, Editor
Julio Rodriguez, Assoc. Editor

JCTE@iastate.edu

Visit the JCTE online at www.iste.org/jcte

Journal of Computing in Teacher Education

Manuscript Evaluation Form

Please return this form attached to an e-mail message to JCTE@iastate.edu

Manuscript Code or Title**:** **Please Type Here**

Preliminary Overview

Significance

a. Value or usefulness to field or profession	Click here
b. Important and timely	Click here

Quality of the writing

a. Grammatical construction; writing style; use of non-sexist language	Click here
b. Overall clarity of ideas and expression	Click here
c. Presentation and interpretation of findings, discussion, and conclusions	Click here

Technical correctness

a. Adequacy of design/accuracy of analysis	Click here
b. Provides perspective of and extends existing literature	Click here
c. Inclusion of appropriate implications for practice and/or policy	Click here

Overall quality	Click here
Recommendation	**Reconsider after major revisions**

General comments

Paste or type comments here -- – Please use line numbers in manuscript to identify the portion of text to which comments apply.

APPENDIX D

Adapted from ISTE Author Guidelines

Manuscript Format: Quantitative Study

- Abstract
- Introduction
    - Literature Review
    - Purpose of the Study
    - Research Questions or Hypotheses
- Methods
    - Sample
    - Design
        - Independent Variables
        - Dependent Variables
    - Procedures
    - Data Analysis
- Results
- Discussion
- References
- Appendices

Manuscript Format: Qualitative Study

- Abstract
- Introduction
    - Literature Review
    - Purpose of the Study
    - Research Questions
- Methods
    - Overview of qualitative method chosen, its philosophical underpinnings, and appropriateness for the given study.
    - Sample: Describe selection of sample and how the researchers gained entry to the setting.
    - Procedures
        - Data Collection: Describe data sources, the how, when, where, with whom, number of sessions, time per session, type of recording, etc.
        - Data Management: Describe plans for organizing and retrieving data and processes and procedures for data analysis.
        - Data analysis: Describe analysis method and specific techniques used in the study.

- Results: Must be supported or verified with substantive evidence and examples directly from the data.
- Discussion: Explain why results occurred. Tie in findings with existing research, especially those studies in the review. Describe the limitations of the study, and give recommendations for further studies.
- References
- Appendices

Journal of Computing in Teacher Education

Manuscript Evaluation Form
Please return this form attached to an e-mail message to jcte@iastate.edu

Manuscript Code: XXXXXX
Due back: JANUARY 20, 20XX

Title: _____

Preliminary Overview

Significance	
a. Value or usefulness to field or profession	EXCELLENT/GOOD
b. Important and timely	EXCELLENT/GOOD
Quality of the writing	
a. Grammatical construction; writing style; use of non-sexist language	FAIR
b. Overall clarity of ideas and expression	FAIR
c. Presentation and interpretation of findings, discussion, and conclusions	POOR
Technical correctness	
a. Adequacy of design/accuracy of analysis	VERY POOR
b. Provides perspective of and extends existing literature	POOR
c. Inclusion of appropriate implications for practice and/or policy	POOR
Overall quality	FAIR
Recommendation	PUBLISH AFTER MAJOR REVISIONS

General comments

(See below)

Journal of Computing in Teacher Education

Manuscript Evaluation Form
Please return this form attached to an e-mail message to jcte@iastate.edu

This manuscript has good potential, but will require major revision before it is acceptable for publication.

First the study needs a clear focus and purpose that raises and addresses an interesting and important issue. The authors need to begin by adequately framing and grounding their work in the literature. In my opinion, the interesting finding from the study is that a single activity in a single course made a difference in students' attitudes toward using computers and technology in their teaching. Attitudes about teaching are notoriously stable and difficult to change so this finding is an important one (see extensive literature in this area—the authors might start with V. Richardson's work on teachers beliefs beginning in 1990).

I would suggest framing the study to take advantage of a discrepancy in the literature. Some research suggests reliance on a single course is a reason why teachers do not use technology in their teaching. Others say experience and training can influence teachers to use technology more in the classroom. Then pull in the difficulty in changing peoples' attitudes. Finish with "The present study was an examination of the effect of a Web-based project on preservice and inservice teachers' attitude toward computers and their technology skills." I would eliminate the other two "questions." They do not add much and detract the reader's attention from the main point. This position would need to be developed in the introduction/lit review.

Next, there are problems with the Methodology section. First, the authors have 31 participants, not 34. They need to make the statement about three students being absent for the posttest once (on line 68), then adjust all other descriptive data (e.g., lines 69) and references (e.g., line 162-164, 194-195) to reflect only the 31 students who were included. Further, the mean is not an appropriate measure for reporting students college-level computer course history. One student might have taken 30 courses, and the other 29 taken none and the average would be 1 per student. Break this out in a different way (e.g., frequencies).

The authors need to describe the instruments more carefully. Include a description of the items in the demographic questionnaire. Include some examples of items in the CAS and TPSA. Scales should be the same (0 to 4 or 1 to 5 for clarity). All anchors should be included for both scales unless they were the same, in which case saying the "anchors for the TPSA were the same as those used for the CAS with 1 indicating Strongly Disagree and 5 indicating Strongly Agree" would be acceptable.

The most serious problems appear in the Results and Discussion section—although they are salvageable. The data are ordinal, not interval, so it is not appropriate to use a paired t-test to examine differences. The Wilcoxon Matched-Pairs Signed-Ranks Test is the correct non-parametirc test for this design and should yield similar results to the t-test. The authors need to update lines 192 to 199 as well as the description of the analyses. In addition, in conducting four separate tests on the TPSA subscales, the authors should use some procedure to correct for Type II errors. I would suggest using the Bonferroni correction as it is fairly simple and easy (see http://home.clara.net/sisa/bonhlp.htm).

Journal of Computing in Teacher Education

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The authors seem to misrepresent the data in lines 183 through 190. They appear to confuse (and equate) the integrated Applications and Integrating Technology in their Instruction domains from the TPSA. The claims they make are confusing and appear to be inconsistent with the data supplied in Table 2. The authors need to think through this part of the analysis more carefully and report it more clearly. I think the key finding here is that the only domain to show significant change was WWW. This is reasonable based on the "intervention" because the instruction did not address any of the other topics. The authors should report (and explain) this finding because it adds ecological validity to the study.

The questionnaire data should be summarized and included in a single section—not broken out by individual question. I would actually not report the data per se, rather, I would use it to support my explanation of why attitudes changed.

In several places, the authors go well beyond their data—making unsupported claims about their findings (e.g., lines 189 to 190, 204 to 207, 286 to 290, 302 to 306). Stick to the Home School communication theme throughout—FOCUS!

Finally, the Conclusions and Implications section needs to be focused and developed more carefully. In the Results section I would highlight the important findings—improved student attitudes and skills. Further, nearly all of the skill improvement can be attributed to gains in the WWW domain. Thus, (tying back to the introduction) the research suggests it is difficult to change attitudes and build skills necessary to get teachers to use technology in their teaching, especially in a single course. However, this study indicates that a single ACTIVITY can change attitudes and build skills. Then explain why and ground it in a theoretical explanation: The activity was directly linked to a real problem—home / school communication, and the technology provided a useful solution to that problem (it was purposeful, meaningful, and useful). Tie in cognitive constructivism, situated cognition, problem-based learning literature, etc. Use the questionnaire data to provide support for this position.

Obviously, I feel this study has merit. I would not have taken the time to write such a detailed review if I didn't. The authors have considerable work to do, but it is manageable. I suggest conditionally accepting the manuscript pending review of the revisions.

Additional comments:

1) Would it make sense to look at the subscales on the CAS (with Bonferroni adjustments of course)?
2) The writing is wordy in places (e.g., pp. 2, 3, 5, 6, etc.)

Journal of Computing in Teacher Education

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3) Need to use active voice (e.g., pp. 3, 5, 6, etc.)
4) Awkward writing style and grammatical errors throughout (e.g., pp. 2, 3, 6, 10, 13, etc.)
5) Mixed tense problem throughout (e.g., pp. 6, 7, etc.)

See extensive additional comments on the manuscript.

APPENDIX F

Journal of Computing
in Teacher Education
_____

Dear Dr. ____:

We regret to inform you that your manuscript, "_____," was not accepted for publication in the Journal of Computing in Teacher Education. Below is a summary of the reviewers' comments that influenced this decision. A file containing the line numbered copy of the manuscript to which the reviewers refer (3AG18.pdf) has been attached to this message.

The editorial board appreciates your efforts and hopes you find the reviewers' input helpful. Again, thank you for submitting this manuscript and we look forward to your continued interest in the JCTE.

Summary of Reviewers' Feedback

COMPILATION OF REVIEWER'S COMMENTS

General Comments

This manuscript focuses on a technology goal which is embedded within a single content course with serious difficulties of purpose. In particular, the perspective of the author(s) is on ensuring the use of the specific technology goals. Often, this reviewer sees these as serious distractions for the learner from the course goal of science content from the view of the prospective teacher. Based on the national crisis in science education, there are numerous activities which clearly take student time and effort from the challenge of knowing science as a teacher needs to know it to be effective with students.

This manuscript appears to claim a career-long value and struggle with portfolio technology and purpose. However, a single course takes the brunt of the frustration and skills development in technology with no mention of the loss of science content and pedagogical content knowledge for prospective teachers.

Please clarify: Did students do a portfolio of work over two semesters (as suggested in the abstract) or did their portfolio cover work over one semester (as suggested in methods section)? I'm guessing that the same course was repeated a second semester with a different group of students, in which case the abstract should be re-worded.

Please review and perhaps change visually the presentation of the data. I found the headings to be inconsistent and hard to follow. Also, quotes should be set up with a statement on what the quote is about, followed by a statement about what it means. Some writing guides about fieldnotes or the like should give some guidance on this. As it is, the reader may just skip over all those long quotes.

Specific Comments

Lines 98-104: It would be helpful to have more description of the portfolio assignments. What did the sleuths activity involve? How did the concept of a children's study relate to science? What technology did students use to create the e-portfolios and what technology skills were required for that?

Lines 133-134: Omit these lines: Generalization is not the purpose of qualitative research, so it is not necessary to say you can't generalize. The terms "sample" and "population" aren't relevant in qualitative research.

Line 136: I suggest: " . . . major categories that emerged during the coding process" to clarify that you didn't define the categories in advance.

Line 141: In the Results section under _____, specifically in line 141, it would be better to start with a summary of your findings for professional growth (a short paragraph) as you have done in the subsequent subsections. THEN support your findings with quotes. The quotes are valuable and important but they should not stand alone as the statement of your findings. The other subsections under Results are fine.

Lines 178-181: Is there a generic introduction to the use of concept maps and related technological tools? It appears that this one course was designated as the one in which this struggle would be embedded. Unless there is a strong science education instructional element on purpose and use of concept mapping, why is it inserted here? From narrative, it sounds like the technology people inserted it, not the science educators.

Lines 379-384; This reviewer is concerned that the meta-refection claimed is about "their technological, professional and personal growth." This is likely the only science experience for these students. It is by-passed.

Lines 348-352: As a science educator, I am dismayed by the commentary about early childhood teachers creating PowerPoint presentations of mathematics. This is counter to all of the standards-based science instruction, particularly in the early childhood years where instruction should use student generated work - in pictures and other invented notations and representations.

Lines 352-355: This reviewer is surprised at the summary of prospective teacher struggles with technology that were allowed to dominate the teaching and learning of science. These are technology issues that should be encountered over time with solutions that are often specific to school, personal, and university interface issues.

Lines 329-334: What is the “value-added” of the portfolio advocated in this article? While there are some generic possibilities, there is a hint that a certification requirement may be driving the entire reason for forcing this into the science course.

Minor Edits

Line 369: students should be possessive: students'

Line 451: consent should be content.

Please do not hesitate to contact us if you have any questions.

Ann Thompson, Editor
Denise Schmidt, Editor
Julio Rodriguez, Assoc. Editor

APPENDIX G

Journal of Computing
in Teacher Education
_____

Dear Dr. _____:

We regret to inform you that your manuscript, "_____" was not accepted for publication in the Journal of Computing in Teacher Education. Below is a summary of the reviewers' comments that influenced this decision. A file containing the line numbers to which the reviewers refer (3JL30.pdf) has been attached to this message.

The editors appreciate your efforts and hope you will find the reviewers' input helpful. We agree with our reviewers that this manuscript addresses a timely topic. We strongly encourage you to use the feedback provided here to revise it and resubmit it. Again, thank you for submitting this manuscript and we look forward to your continued interest in the JCTE.

Summary of Reviewers' Feedback

REVIEWER 1

This is an important topic and the literature review provides a good foundation for the study. The significance of the effort is very important due to the relationship between the government and the institution of higher education. Studies that may impact public policy are important. Therefore, I hope that the authors will address the concerns listed below and re-submit.

First I appreciate the place of action research in a distance education course. This type of activity makes sense in such a course with working professionals. However, the quality of the action research submitted and the topics of the action research were not discussed. The quality and quantity of the peer discussion and feedback on their action research projects were also not addressed. Finally, were the outcomes of the distance education course similar to those of the face-to-face course?

Second I am concerned about the exclusive use of self-report as the only data source for the evaluation of the distance education effort. I would like to see other measures such as an evaluation of the quality of the peer-to-peer and

student-to-instructor online conversation. Also, an analysis of the quality and relevance of the participant's action research would be helpful.

Third the return rate on the survey is a concern. Line 245: 11/21 seems inadequate for a single course with 21 enrollees. An explanation is needed for such a low number of participants being willing to provide feedback. I expect all of my students to provide feedback on my courses. It seems unusual that all of the students would not want to help improve the course through their feedback.

Fourth, I would like to see the discussion return to the framework set up in line #101:
Interaction between students online are led by student questions and answers but managed by the tutor. Generation 3 type course.

Show us through the work (an analysis of the discussions and paper submitted) that the students completed whether this theoretical framework was found to be a good explanation for the results of the study.

typos: line 336 ...Online Lecturer probably should have The Online Lecturer
line 345 "...should recognises..." should be "...should recognize..."

REVIEWER 2

A most interesting topic—raising many issues of online teaching and learning. This paper addresses the increasingly important topic of using online approaches to teaching and learning and discusses how this may differ from past practices. I have not see research articles for JCTE addressing this previously; however, I question the design of the study for evaluating the effectiveness of the course. Why would there be only 11 of 21 responses when the course could have required such an evaluation? And how valuable
are the percentages when there are only 11 respondents? A 20 percent in a category means only about 2 students and 80% means about 9 students and thus minimizes the value of the percentages. I personally would have rather seen more discussion of what specific things were done by the lecturers to make the online learning seem so effective, and what the students said about such things . . . And a report from all 21 students. Also more specifics about their action research projects would have provided more insight into the effectiveness of this teaching approach.

REVIEWER 3

Overall: There are some interesting ideas here, however the organization masks most of the importance that might be found here. It seems to jump around in

places - it may be that some subheadings and bullet points may be enough to help make it make sense, although I think developing and using a clearer outline may be helpful.

1: teachers'
47-48: doors one line and door the next
71: discrete instead of discreet
72: This section is hard to follow - I think some of the right components are there, but they would read better if they were tied together better.
91-92: this sentence worded awkwardly - consider rewriting.
95: first time the term "tutor" used - consider explaining before or now
105: Type I discussions not mentioned before
127: OK, I guess I don't know what "inter alia" is, and with it used multiple times here, perhaps others may not know as well.
185: is the parenthetical regarding age statement something that still needs to be addressed?
199: this is described as a full-time qualification - I'm not sure what this is. Are the students currently teachers or undergraduates?
229: perhaps a subheading here introducing the methods section
262: perhaps some item numbering here for clarity
318: I'm really left wanting more about the specifics of these action research projects. What types of issues are they investigating?
336: lecturers or the lecturer
Figure 1: I'd like to know more about these stages and how students exemplify each.

Please do not hesitate to contact us if you have any questions.

Ann Thompson, Editor
Denise Schmidt, Editor
Julio Rodriguez, Assoc. Editor

JCTE@iastate.edu

Visit the JCTE online at www.iste.org/jcte

APPENDIX H

Journal of Computing
in Teacher Education
_____

Dear Dr. _____:

We are pleased to inform you that your manuscript, _____, was conditionally accepted for publication in the Journal of Computing in Teacher Education. Conditional acceptance means that a number of reviewers' suggestions and comments for your manuscript must be addressed before a final publication decision is made. A file containing the line numbers to which the reviewers refer (_____.pdf) has been attached to this message.

We request that you return your revisions no later than _____. In your revised draft, please highlight in bold all changes and modifications made to the original file that was sent to us. Please do not modify the pdf file attached to this message. Keep this file for your records and use the original file you sent us to work on revisions.

You may return your revised manuscript attached to an e-mail message to this address. We would like to request that you save your final draft as .rtf (Rich Text Format).

If you have any questions or concerns, please do not hesitate to contact us. The editorial board appreciates your efforts and hopes you find the reviewers' input helpful. Again, thank you for submitting this manuscript and we look forward to hearing from you soon.

Summary of Reviewers' Feedback

REVIEW 1

Overall, the article is well written and addresses an important topic. The authors do a nice job of clearly expressing their ideas and of making a logical argument. The article has additional credibility because the study was sanctioned by AACTE. However, several things that should be included in a survey-based study are missing and I strongly urge the authors to include them and the editors to require them prior to publication: (1) there is no discussion of how the instrumentation was developed and tested for reliability and validity. Without such information the study loses credibility, (2) there is no discussion of how the

authors took steps to secure the highest response rate possible; there are numerous survey design books that advocate various approaches for this, and (3) there is no discussion of the sample. It seems strange that respondents might be Deans, faculty members or other administrators. This seems to muddy the results significantly and the authors should address this.

Other suggestions for the authors include:

Lines 69-75: This section needs further clarification. Why would Deans answer questions about what they are doing to "develop technology-based projects?" It seems they may do things to support but not develop them.

Line 95: Clarification may be needed regarding what is meant by a "technology course". The majority of courses in teacher education use a combination of strategies and some of the best uses of technology occur when technology is integrated in courses that are not technology-based.

Line 135: The first sentence could be worded in a better manner.

Line 222-224: "since technology-based research....for important discoveries in the profession" is a strong claim to make without a citation.

Line 229: consider using “educational technologists”—“technology educators” insinuates skills training or vocational training

Line 232-234: "Similarly, we have found....in functionality and practicality" Numerous scholars have found this and referred to it as "stages of adoption" or similar names. Might want to cite.

Line 251: Cite “_____” as it might not be familiar to all.

I hope these comments are helpful to the authors.

REVIEW 2

Well written in general; at times seems a bit redundant in stating and restating the ideas. Only 33% respondents is a bit low, but does provide useful information for the field and provides ideas for SCDE's to pursue to improve the situation.

An aside: as a person who has been in on the ground floor of developing technology and technology infusion into courses in SCDE's, I'm disappointed that we haven't made further progress and that administrator's are still not seeing the importance of providing incentives. Learning and using technology takes a great deal of time and must be in addition to field experience work, clinical experience

work, supervision, research and publishing, all of which are important in a good teacher education program. Not to consider incentives to use more technology in teacher education in a world that not only depends upon it, but is using it heavily in most schools, is irresponsible, to say the least. Although not the "be all, end all" of anything, technology is a major part of most of our lives and will be increasingly so. It is important to provide appropriate incentives to those who are teaching our teachers so they may provide a sound technology education to our students who must more and more navigate learning and gaining information on a website, or other technological device.

REVIEW 3

I appreciate that this survey presents systematic data that can inform the field. I believe, however, that the article would be improved by a deeper, more thoughtful look at the issues that inform the recommendations that the authors have put forward. As described below, I believe that the authors have taken a big leap from the data reported to some of the conclusions that they make. I believe that those conclusions should be more thoughtfully probed and supported. While I have classified this as a minor revision, in my view, it borders on being a major revision.

Suggestions are listed below:

--The abstract needs work. For one thing, the transition from the context to the findings on line 10 is awkward.

--The survey should be an appendix, not a figure.

108: Forty one (33%) -- need to reconcile.

--Decide on using graphs (figures) or tables--not both. If the graphs are illustrative, I recommend using them.

147-148: Statistic reported not helpful at all. Needs to be more precise.

151: Change "believe" to "cited"

166: insert "are not" before "used"

204: The transition to the author(s) views here seems awkward to me. Beginning with line 204, a series of recommendations follows. In some cases, it's not clear on what data the author(s) are basing their conclusions. I recommend that the author(s) discuss the findings of this survey in light of other related literature--findings from their previous studies and findings and recommendations from other studies, perhaps including literature that examines faculty rewards that are

not specifically related to technology. Then it would be fine for the authors to offer their own conclusions—being clear if they are specifically drawn from findings of the study or merely their own views of what should happen to make progress in this area.

On line 213 the authors cite that the data indicates that institutional conditions for technology use have not improved appreciably over the past several years. My own personal sense was that this was improving quite a bit, especially with the impact of PT3. It would help to be more specific about this statement and support that finding, citing findings in other studies.

218/219: Is this recommendation to require faculty to teach with technology based on data? While I may agree with the recommendation, it's quite a leap to recommend that all faculty teach with technology for the purposes of tenure and promotion (vs. rewarding those who opt to teach with technology). This type of recommendation should be more thoughtfully developed, with a discussion of related issues and literature, or dropped. It is not a trivial recommendation to go from the "volunteer" approach to technology integration to mandated use (which is what it would be if it were required to tenure and promotion).

238: Should refer to NETS-T standards and content area standards.

244-245 Refer to Field Experience Special Issue of JCTE (Winter 2002).

Overall, I believe that this study has good potential to benefit the field, but feel that the discussion and conclusions must be more thoughtfully done.

Please do not hesitate to contact us if you have any questions.

Ann Thompson, Editor
Denise Schmidt, Editor
Julio Rodriguez, Assoc. Editor

JCTE@iastate.edu

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APPENDIX I

Journal of Computing
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_____

Dear Dr. _____:

We are pleased to inform you that your manuscript, "_____," was conditionally accepted for publication in the Journal of Computing in Teacher Education. Conditional acceptance means that a number of reviewers' suggestions and comments for your manuscript must be addressed before a final publication decision is made. A file containing the line numbers to which the reviewers refer (3JL24.pdf) has been attached to this message.

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You may return your revised manuscript attached to an e-mail message to this address. We would like to request that you save your final draft as .rtf (Rich Text Format).

If you have any questions or concerns, please do not hesitate to contact us. The editorial board appreciates your efforts and hopes you find the reviewers' input helpful. Again, thank you for submitting this manuscript and we look forward to hearing from you soon.

Summary of Reviewers' Feedback

REVIEWER 1

Well-written, clear, timely and of interest to the journal's readership.

REVIEWER 2

Very interesting and rich data, but I was disappointed in the conclusions and recommendations for practice. I think this last section needs beefing up. It will be a quoted resource!! Lots of work here. Make it count!!

REVIEWER 3

Could use a more substantive conclusion section.
Technical correctness: I'm not clear on how capacity was determined -- or what the "capacity" scores were after 1998.

Please do not hesitate to contact us if you have any questions.

Ann Thompson, Editor
Denise Schmidt, Editor
Julio Rodriguez, Assoc. Editor

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APPENDIX J

Dr. Robert Seidman, Executive Editor
Journal of Educational Computing Research
New Hampshire College Graduate School
2500 N. River Road
Manchester, NH 13106-1045

Dear Dr. Seidman,

Enclosed please find my revised manuscript *The Influence of Cognitive Load on Learning From Hypertext.* The reviewer's comments were extremely helpful in guiding my revisions and the article has benefited substantially. I outline the changes I made below.

The major revision I undertook was to reorganize the theoretical framework and explanation of results. I rewrote the introduction section to present a consistent theoretical orientation. I developed a theoretical rational for the potential benefits associated with learning in a hypertext environment based on Cognitive Flexibility Theory and drawing on depth of processing, executive control, and learner control. This allowed me to state the hypothesis more clearly and include it earlier in the paper as suggested by one reviewer. The purpose for the study is included on page three of the manuscript and the revised hypothesis is stated just before the methods on page seven creating a smoother transition between the introduction and the methods sections.

I then moved the Cognitive Load Theory section, which serves to explain our anomalous results, to the discussion. This greatly improves the flow of the paper—theoretical orientation—>hypothesis—>study—>counterintuitive results—>explanatory theory. This revision addresses several concerns raised by the reviewers. The depth of processing issue raised by one reviewer becomes more central to the argument. Depth of processing frames the theoretical orientation of the study. By moving the cognitive load theory explanation to the discussion and more carefully developing the argument, I have clarified that the benefits of depth of processing is not in question. The issue I raise is <u>why</u> depth of processing benefits do not hold in this case. Thus, I am not claiming that ". . . the process of comparing and contrasting hinders learning," rather, that the increased cognitive load associated with operating the hypertext program may inhibit students from ". . . adequately integrate(ing) the new knowledge into existing knowledge structures." I believe this change dramatically improves the flow of the paper and provides a better presentation of our argument.

One reviewer recognized the relevance of the initial draft of the manuscript: "I think the topic is an excellent one and agree we need such examinations before we

abandon all linear text in favor of more interactive hypertext." The organizational changes that were prompted by the other reviewer further improve the relevance of the article. Our purpose is more clearly presented and the contribution to the literature base is clarified. I have not seen any research that addresses the effects of cognitive load on learning from hypertext. In fact, much of the literature on learning from hypertext touts the advantages of using hypertext and few have an empirical basis. This paper raises questions about the current trend toward promotion of hypertext without careful evaluation of its utility. In the conclusion section, I have been more specific about implications of this research and made some policy statements.

One reviewer raised some additional organizational concerns. The reviewer suggested that scoring of the dribble files should be considered part of the results. I agree and integrated this analysis into the results section. I also addressed the problem this reviewer had with our presentation of the "traces" data. I think the reviewers concern is justified because the first mention of the trace data analysis came in the discussion section. I revised to report the trace data findings in the results section, then expanded on those findings in the discussion section.

I have also responded to the concerns a reviewer raised about the regression analysis. I provided several citations and additional explanation of the correlate and aggregate model that we used. Cohen and Cohen is a statistics text which provides conceptual support for the procedure and the Anderson, Mason and Shirey and Rushton, Brainerd and Pressley articles provide theoretical justification and guidance for practical application of the model.

Both reviewers raised several minor points that required attention. One reviewer noted that several references were incomplete. I use the EndNote program to store and organize my references. Unfortunately, the reference format used in JECR is not supported by the program. I have manually corrected all references to conform to JECR standards. I was unable, however, to find sample citations for an ERIC Documents report (Milheim & Azbell), the hypertext shell computer program (P. Skolmoski), and the Nelson-Denny reading test (Brown, Fishco, and Hanna) in other JECR articles. I did my best with these citations, but they may be incorrect.

One reviewer also suggested that perhaps categories for how students read should have been determined before the study. These categories emerged from the data. We tried to increase ecologically validity by allowing students to choose how they wanted to navigate through the text, rather than assigning them to read in ways that might be artificial. Thus, we could not determine categories in advance because they emerged from the data collected from our unique subject pool.

I revised the final sentence in the abstract and addressed all indicated omissions. I tempered the "leaps and assumptions" on page three so statements were not quite

so strong. I also changed “learner factors” to “individual characteristics” on page six. I added a statement that gender differences did not contribute significant variance and was dropped from the analysis on page 18.

Finally, I changed “schema” to “schemata,” reworded the sentence on different tasks producing different cognitive loads, and changed “CFT environment” to “hypertext environment that is designed to support CFT principles.”

I hope these revisions address your concerns. I look forward to the publication of this article.

Sincerely,

Dale S. Niederhauser