

A step-by-step guide on how NOT to get published in a high-impact educational technology journal

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Many elements come together to make for a good, publishable manuscript in a high-impact educational technology journal. There are also some fatal errors and omissions that will doom a paper to be immediately declined. In this editorial, we focus on the latter. Checking the aims and scope of a journal is a simple step to ensure that the publication of an article is not delayed and time is not wasted. Unfortunately, it seems this step is neglected by many aspiring authors. Beyond a misalignment with the aims and scope of the journal, we will discuss some of the other main reasons why manuscripts have recently been declined by AJET. We hope that this editorial will assist authors to ensure that they do not make the same mistakes.

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Introduction

In this editorial, we report on the problematic practices that have been observed when considering the many manuscripts submitted to AJET over the last 2 years. Across the 1,300+ submissions received in that time, many patterns have emerged that demonstrate what not to do when preparing a manuscript for peer review in an educational technology journal. We hope that this editorial will be useful for authors aspiring to publish in AJET and other high-impact educational technology journals to increase the likelihood of their work being published. Of course, an alternative would be to focus on elements that would get your article published, but we feel it is equally as helpful to point out what not to do.

Many important elements go into a high-quality journal article. In the context of AJET, we outline these on our website as part of the submission process. Although many authors address these elements quite well, increasingly many do not, which has motivated us to write this editorial. We have not covered every possible component that might lead to a manuscript being declined, and the list of issues we discuss here is therefore not exhaustive. However, these issues can prompt important consideration by authors to ensure that they give themselves the best chance of getting their research published.

No alignment with journal aims and scope

Given that the aims and scope of AJET (and many other journals) are clearly spelled out on the front page of the journal website as well as in the guidance for authors, it constantly surprises us how many papers submitted to the journal do not align with the aims and scope at all. Some recently submitted manuscripts have had no relationship whatsoever with the focus of the journal. In case there is any confusion, articles on the basic mechanisms of radiography are not within the aims and scope of AJET, sorry (and yes, we did actually receive a manuscript on this topic). Authors who do not check these requirements closely before submitting are, to be frank, wasting their time and that of the editors.

In many instances over the last 2 years, manuscripts have been submitted to AJET that are not about education, not about technology and not situated within the tertiary education context at all. This is the simplest issue to address. Authors should always check that their work aligns with the aims and scope of a journal. The title of the journal does not always capture this important detail. In our case, although this is the *Australasian Journal of Educational Technology*, AJET is an international journal (not just Australasian), and we do not publish work that is not situated within tertiary education. Neither of these elements of the journal's scope are obvious from the title but are nonetheless important.

Of all the submissions we have had that do not align with the aims and scope of the journal, the prize for most inappropriate submission was an advertisement for a contract cheating service they had submitted as a manuscript. Nice try team, but no, thank you. Please check the aims and scope before submitting.

No contribution to the field

Once aligned with the aims and scope of the journal, we are interested in whether a manuscript moves the conversation in the literature and the broader field forward. This is not always clear in manuscripts and, again, can be a straightforward issue to address. Some good advice is to state clearly and unambiguously somewhere in the manuscript (and preferably early on) exactly what the intended contribution is. Do not make reviewers guess; for example, "The contribution to existing research we make in this paper is ..." – this should not be too difficult, unless you do not know yourself.

Beyond the contribution not being clear, there are many instances we have seen of manuscripts looking at issues that have long been comprehensively covered, left behind or that use outdated methods. We will discuss some of these problems in detail shortly. However, it is difficult to make an argument that you are contributing to the current state of the literature when you are entering the conversation as it has been in the (sometimes distant) past, not where it is now. Similarly, it is hard to argue that you are moving the field forward if your work is based on ideas that have little to no evidence supporting them (see Lodge et al., 2022). If there is already a vast literature on the area you are working in, you need to make it very clear what your contribution is to the conversation in that area; yet, often this is not obvious in submitted manuscripts.

The advice we would give here is to ensure you are as up to date as possible on the current state of the field. That means being on top of current theories, methodologies, methods and empirical findings. Although it might seem obvious that it is unlikely we would be publishing work on bulletin boards (assuming they have not made a miraculous comeback between the time of writing and when you are reading this), it is common for manuscripts to contain similarly outdated theories and research methods. We do not necessarily decline papers simply because they might include some outdated ideas but including such ideas does not help make the case that the manuscript is moving the conversation forward.

Lack of relevance to the international audience of the journal

As we mentioned earlier, AJET is a journal with an international focus. Manuscripts need to speak to a global audience of educational technology researchers, practitioners and policymakers. We do not automatically decline papers that are situated within a specific niche context, country, institution or discipline. However, authors should attempt to explain what the implications of their research are beyond their own context, country, institution or discipline, as it should not be left up to editors, reviewers or readers to figure this out. Please explain clearly what your small-scale study tells us about the issue you have investigated beyond the context in which you carried out the study.

When contextualising work for a broader audience, it is also important not to make a claim that your findings can be generalised without sufficient power in the study. This can be particularly tricky for qualitative studies where a core part of the research question(s) is specifically about understanding context and the experiences of people within that specific context. It is possible to help readers understand the wider meaning of your study without making a claim that the findings are generalisable

to other settings. Perhaps the simplest way to do so is to make suggestions, rather than firm assertions, about transferability.

Insufficient detail about methodology and methods

We all read and consume research articles in our own ways. For some of us, including members of the editorial team, reading the methods section is our starting point. The reasoning for this is that the methods section is supposed to give a clear sense of how the study was actually conducted. This is important for deciding whether or not the rest of the paper is worth reading. Getting the methods section right is vital for a publishable manuscript.

Many papers submitted to AJET do not have anywhere near the level of detail required to give readers a sense of how the study was conducted. Sometimes, measures are not adequately described; in other cases, there is no sense of what students or participants actually did in the study. The most common errors are omissions of details about how the instruments used in a study were scored or how qualitative data were coded. Without this important detail, there is no way for a reader to be able to interpret the results section.

As a rule of thumb, we recommend that authors provide enough detail in a methods section for an appropriately qualified and experienced reader to be able to replicate your study in their own context. This can be difficult as AJET has a strict word count, and it may mean making other sections and sub-sections more concise. If there are insufficient details about protocols, scoring, coding, there is simply no way for a reader to understand what you did in your study. The rest of the paper is not going to matter if a reader cannot understand what you did in your research.

Outdated methods

Research and analysis methods change over time. Some practices that have been widely used and accepted in the past are no longer considered acceptable practice. Perhaps the most prominent example is small experimental and quasi-experimental studies. However, there are some other outdated methodologies and methods that are difficult to justify in the 2020s. Let us start with some of the issues with quantitative papers.

Firstly, as we have discussed in a previous editorial (Lodge et al., 2021), the replication crisis has changed what is considered acceptable in terms of quantitative studies. The implications are perhaps most salient for experimental and quasi-experimental studies. Small-scale between-subjects/groups studies with 30 or fewer participants in each condition are more often than not inappropriate now. There are no hard and fast rules here, but sample sizes often need to be larger or something needs to be done to give editors, reviewers and readers more confidence that the study results can be trusted. There is little interest in underpowered studies, for good reason. It is strongly recommended that anyone carrying out these kinds of studies look carefully at areas like social psychology (e.g., Schimmack, 2020) where there has been a significant effort to carry out larger-scale studies using research methods that are robust when it comes to issues with power and effect size.

This next issue is likely to be somewhat controversial. Likert scales are routinely categorical (ordinal) by nature. In many instances, they are also bipolar. Consider the way that most Likert scales are presented to participants. It is often a set of radio buttons or checkboxes that force participants to choose between options, such as from strongly disagree, through neutral to strongly agree. Each of these responses is then assigned a number; for example, 0 or 1 for strongly disagree to 5 or 7 for strongly agree, depending on the scale. Firstly, the neutral point should be 0, agreement and disagreement are not on a single, linear dimension. Secondly, participants have been asked to make a discrete choice, which is then often assumed to be on a continuum from 0 or 1 to 5 or 7. What is the justification for taking a categorical measure and assuming it is an interval scale (i.e., continuous)? That previous scales have done this is not a strong argument, the practice makes no sense psychometrically. Some (e.g., Norman, 2010) argue that this practice is okay but others (e.g., Jamieson, 2004) make a sound case that it is inappropriate. Given

this uncertainty, at a minimum, we would expect authors to provide a sound rationale for assuming that a categorical scale should be treated as continuous (see Wu & Leung, 2017, for an example of this kind of rationale). Likert scales are the most prominent of these kinds of methodological issues, but prospective authors should provide clear rationales for all methods used in studies based on current best practice.

Perhaps the other most contentious methodological issue is the ongoing use of self-reported acceptance or satisfaction with technologies as a key outcome variable. While the use of “happy sheets” in studies is not as common as it used to be, there are still many studies being submitted to AJET using technology acceptance and other models for essentially obtaining the opinion of learners. Opinions are important, and we are not arguing that this work is not needed. However, the issue is that satisfaction with or acceptance of an educational technology is then sometimes deemed sufficient for claiming that the technology has been effective in facilitating learning. Just because learners are satisfied does not mean that they have necessarily learned more effectively, or indeed anything at all. In fact, research in areas such as that on so-called “desirable difficulties” (see Bjork & Bjork, 2011) suggests the opposite. Therefore, it is important that self-report measures are appropriately contextualised and preferably considered among a range of output or outcome measures.

Although not implicated as strongly by the replication crisis, qualitative methods have also evolved. Many aspects of qualitative research have changed, and authors should be explaining and justifying their methods based on current approaches. For example, the work of Braun and Clarke (2006) is often used as a basis for thematic analysis. However, Braun and Clarke have recently recommended updates to how their earlier ideas have been understood and implemented in qualitative research (e.g., Braun & Clarke, 2020). A high-quality qualitative manuscript will include a description of a study that draws on more recent thinking about thematic analysis approaches rather than on now-superseded methods.

Incorrect reporting of results

Inferential analysis of data, in particular, requires rigour. That is true for quantitative, qualitative or mixed methods studies. There are many fine resources available to assist with the analysis of data. Despite this, many manuscripts submitted to AJET commit crimes against statistics. If you want to communicate clearly that you do not know what you are doing to an editor or reviewer, one of the best ways to do so is to report a p value as 0. Given that it is impossible to have a p value equal to zero and still be working within a probabilistic paradigm, it does not give readers a lot of confidence in the analysis of data when authors do this. Sadly, we receive many manuscripts where such fatal mistakes in reporting occur.

There are long-established and constantly updated protocols for reporting quantitative and qualitative results. Authors are encouraged to draw on the vast body of resources to help with this reporting. A good starting point is the recommendations provided by the American Psychological Association, particularly given AJET requires manuscripts to be formatted in alignment with APA style manual (7th edition) guidelines.

Conclusion

AJET is a high-impact journal with a focus on the use of educational technologies in tertiary education. There is limited space for articles in the journal, and it has a wide audience. We are, therefore, only able to consider papers that are of relevance to our audience and that have the greatest potential for impact in the community. We are hopeful that the pitfalls outlined in this editorial might prove to be useful for authors considering submitting to AJET.

Author contributions

Jason Lodge: Conceptualisation, Writing – original draft, Writing – review and editing; **Linda Corrin:** Writing - review and editing; **Henk Huijser:** Writing – review and editing; **Feifei Han:** Writing – review and editing.

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