UNDERSTANDING THE NEEDS OF YOUR MULTIDISCIPLINARY AUDIENCE

Preparing to write for an interdisciplinary journal

A cooperation between the Centre for Corpus Research, University of Birmingham, and the international scientific publisher, Elsevier.

The project focused on the discourse of interdisciplinary research. We investigated the extent to which interdisciplinary research fields operate as a unified whole and, in contrast, the extent to which disciplines maintain their discrete identities in interdisciplinary discourse. Find out more: http://idrd-bham.info/idrd/

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1. About this guide

As a researcher, you may have a story to tell that contributes not just to members of your own specific field of study, but that is of interest to a wider international multidisciplinary audience.

“One of the interesting challenges is to work out how you can get into a particular journal and what you need to be doing to make it appealing to that journal.”

This guide will help you prepare your research articles with the aim of having them published in interdisciplinary journals. It contains advice and tasks that will help you understand the needs of a multi-disciplinary audience and the best ways in which to present your writing. The tasks invite you to study examples and they cover matters both of organisation and of language use.

Although the focus of this booklet is on interdisciplinary journals, it covers fundamental principles about writing for academic journals and will therefore also be useful to those researchers who are aiming to publish within their own field.

This guide is based on findings from the ESRC-funded research project, ‘Investigating Interdisciplinary Research Discourse’, carried out at the University of Birmingham in cooperation with Elsevier. Interspersed throughout the text you will find paraphrases (in blue) of comments made by researchers and by editors during interviews carried out as part of this project. The journal article excerpts are taken from the following interdisciplinary journals: Global Environmental Change, Journal of Rural Studies and Strategic Information Systems.
2. Writing for interdisciplinary journals

Submitting an article to a discipline-specific journal can be a good way to build a reputation for research in your field. However, writing for an interdisciplinary journal has many benefits too. For example, by publishing in interdisciplinary journals, you can bring your research to the attention of a wider range of people.

We here define an interdisciplinary journal by its intended readership: it is a journal that publishes papers that originate in a range of disciplines and which have been written for an audience from a broad range of disciplines. These papers often address a set of real world problems around a central topic and offer a fresh perspective, e.g. on conceptual, theoretical or methodological issues.

Interdisciplinary journals tend to accept papers which fit their general theme. If a paper originates in a discipline that has not been represented in the journal before, the article is still likely to be accepted if it offers something novel to the theme and is of a high standard.

“I try to avoid disciplinary journals because they serve the needs of a particular discipline and a lot of my research is of broader interest.”

The best way to prepare your paper for submission to a journal is to do your research into what the journal wants: visit the journal website and carefully read the journal guidelines for authors; look at a sample of papers from that journal to see how the writers organise their papers, which sources they cite, what language they use, and so on.

3. Preparing to write for your multi-disciplinary audience

All researchers, including those that work in an environment with colleagues from the same disciplinary culture, have educational and academic backgrounds that are specific to them. When working in cooperation with others, researchers will be looking at matters from their particular perspective, which reflects the topics and theories they have been influenced by and are familiar with.

“When I read an interdisciplinary journal article, I can tell which field the authors are from, because they write from the perspective of their field.”
When writing for an audience from many different cultural and academic backgrounds, the challenge is to be aware that the readers may look at the world in very different ways. While it is not possible to know what all the other perspectives may be, authors can compensate for this by being explicit about their own world view throughout their article.

“If we’re publishing a detailed, quite technical article, we tend to assume that our audience is not particularly knowledgeable about our topic and we would tend to repeat a lot of basic information about what has gone on in this area.”

In this section, we will look at five areas that you need to consider when you are preparing your paper for submission to an interdisciplinary journal:

- The research contribution
- Writing your introduction
- Writing about writing
- Vocabulary
- Writing about yourself and others

3.1. The research contribution

One of the key elements in any type of research paper is a statement regarding the contribution that the research makes.

“When I want to publish in an interdisciplinary journal, my goal is to educate about the novelty of my research and about the value that is added when we are looking at a topic they are interested in but from a different perspective.”

In your own field, you will need to demonstrate a methodological, theoretical or empirical contribution to the field or discipline. You are likely to emphasise the innovation in the theory or method and will aim to demonstrate your expertise.

When presenting interdisciplinary research this will still be true but your focus is likely to be on the relevance of the proposed study to ‘real-world’ concerns, and on its applicability.
Task 1: Read the two abstracts below. Identify phrases in the text that refer to (1) the real-world concerns that the research addresses and (2) the applications.

1. Concerns about water scarcity and management have focused attention on the relationship between agriculture and other competing water uses. This research aims to evaluate the perceptions of and preferences for irrigation use and management in a rural area, and it does so through an analysis of stakeholder attitudes in a large irrigation system in Southern France: the Neste System. The stakeholder analysis approach and the governance model approach are applied in combination with a new form of graphical representation to evaluate the conflicting points of view between stakeholder’s profiles, which are called TIMA. Results revealed that there are heterogeneities between the preferences of stakeholder groups regarding water resources management, agricultural practices, and irrigation challenges. Qualitative and graphical results highlight the competing topics, the stakeholder relationships and the ability to secure permanent agreements by promoting participatory development and good governance. These results can be used by the relevant authorities to customize their interventions, knowing beforehand and in a well-structured form which are the different stakeholders’ priorities. In this way, more effective avenues of communication can be established in the decision-making processes regarding irrigation challenges.

2. Climate change raises many questions with strong moral and ethical dimensions that are important to address in climate-policy formation and international negotiations. Particularly in the United States, the public discussion of these dimensions is strongly influenced by religious groups and leaders. Over the past few years, many religious groups have taken positions on climate change, highlighting its ethical dimensions. This paper aims to explore these ethical dimensions in the US public debate in relation to public support for climate policies. It analyzes in particular the Christian voices in the US public debate on climate change by typifying the various discourses. Three narratives emerge from this analysis: ‘conservational stewardship’ (conserving the ‘garden of God’ as it was created), ‘developmental stewardship’ (turning the wilderness into a garden as it should become) and ‘developmental preservation’ (God’s creation is good and changing; progress and preservation should be combined). The different narratives address fundamental ethical questions, dealing with stewardship and social justice, and they provide proxies for public perception of climate change in the US. Policy strategies that pay careful attention to the effects of climate change and climate policy on the poor – in developing nations and the US itself – may find support among the US population. Religious framings of climate change resonate with the electorates of both progressive and conservative politicians and could serve as bridging devices for bipartisan climate-policy initiatives.
Notice how the authors of these abstracts emphasise the relevance of the work to issues in the ‘real’ world and its application at the beginning and end of the abstract.

These results can be used by the relevant authorities to customise their interventions, knowing beforehand and in a well-structured form which are the different stakeholders’ priorities. In this way, more effective avenues of communication can be established in the decision-making processes regarding irrigation challenges.

Policy strategies that pay careful attention to the effects of climate change and climate policy on the poor – in developing nations and the US itself – may find support among the US population. Religious framings of climate change resonate with the electorates of both progressive and conservative politicians and could serve as bridging devices for bipartisan climate-policy initiatives.

In interdisciplinary journals, the writers will often emphasise that they are trying to solve a similar problem to others, i.e. to show that there is a common ground between them and other researchers.

At the same time, they have to specify what makes them different, which is likely to be their approach.

3.2. Writing your introduction

An introduction in a paper destined for an interdisciplinary journal is likely to be longer than the average introduction in a disciplinary journal because more background needs to be given to an audience that may be new to the specific topic or approach.

“Our interdisciplinary journal is open to publishing different types of analyses but a paper that includes quantitative analyses has to be written in such a way that it would be accessible to non-specialists, which is what our readers are. Sometimes these papers use a different language, a different set of concepts and terminology and these will need explaining.”
In the introduction it is important to **situate the research**, i.e. show how it relates to other research in the field. In a disciplinary journal it can be a good strategy to cite the same literature as the papers already published by the journal. This is also true for an interdisciplinary journal but it is important to draw on a broader range of literature.

**Task 2: Read the two excerpts below. Identify the sections that situate the research.**

1. The purpose of this paper is to explore how firms respond to challenges from rare transformational technology that threatens a traditional, successful business model. We propose an extension of Christensen’s theory of disruptive technologies and illustrate the extensions with a longitudinal case study of Kodak. … The two main contributions of the paper are the extension to Christensen’s theory and the lessons from Kodak’s unsuccessful response to a major technological discontinuity.

2. Even while much research and practitioner discourse have focused on the process of strategic IS planning (Premkumar and King, 1994 and Ward and Peppard, 2002) and strategic IS alignment (Chan et al., 1997, Chan and Reich, 2007 and Henderson and Venkatraman, 1999), less research has delved into the actual content of IS strategy per se. The foundational work on IS strategy, led most notably by Earl (1989) and Galliers (1991), defined IS strategy as comprised of an information strategy, an information technology strategy, an information management strategy, and a change management strategy. Collectively, these components represent the fundamental decision areas entailed in managing IS. …

Recognizing that IS strategy remains a term that is widely utilized but still not fully understood nor readily measured, Chen et al. (2010) develop and operationalize a typology of three IS strategies.

…, our study contributes to the literature on IS strategy by identifying an extension to the existing typology, that is, by finding a fourth possible IS strategy,…

Notice how the writers both mention what research has been done and what has not:

1. - **what has been done**: Christensen’s theory of disruptive technologies
   - **what the researchers propose**: an extension of that theory, identification of lessons based on a case study of Kodak
2.

- what has been done: a focus on the process of strategic IS planning and alignment/ a typology of three strategies
- what has been done less: an exploration of the actual IS content
- what the researchers propose: an extension to the typology of strategies by adding a fourth

In an interdisciplinary journal there will be a need to show that there is a common problem that is being addressed, and that there is a need for cooperation. At the same time the article writers need to move away from the common ground and show what is different in their approach.

Introductions tend to start with more general information and then narrow down the topic, ending with the unique approach that the research offers. In the following example, the first sentence of each paragraph of the introduction has been given. Notice how the information moves from general to specific:

- **The emergence of new retail channels** such as the Internet and mobile commerce create requirements for new payment instruments to enable feasible and convenient transactions in these channels (Ondrus and Pigneur, 2006).

  …Mobile payments have been suggested as a solution to facilitate micropayments in electronic and mobile commerce, and to provide an alternative for the diminishing use of cash at point of sale (POS) (Menke and de Lussanet, 2006 and Ondrus and Pigneur, 2006).

  **At present, there are many examples of successful mobile payment applications** such as the mobile content market which has developed into a billion dollar business, (Menke and de Lussanet, 2006), PayPal Mobile (Wolfé, 2007) or use of mobile payments in public transportation (Mallat et al., 2004).

  …The success or failure of mobile payments has strategic implications for many companies…

  **A recent survey suggests** that companies in the mobile payment business perceive consumer acceptance as the greatest barrier to mobile payment adoption (Edgar Dunn and Company, 2007). …

  **The objective of this study** is to explore consumer adoption of mobile payments by empirically detecting the adoption determinants that are relevant for the new mobile payment context.
3.3. Writing about writing

In this section, we will look at two areas:

1. Explaining how the text is organised
2. Explaining concepts

1. Explaining how the text is organised
Above you will have read the following text: “In this section, we will look at two areas”. This text refers to the organisation of the text (‘this section’) and functions as a signpost for the readers: it tells them what they can expect (‘two areas’).

When you are writing for an audience that may not be familiar with the types of articles that are written in your specific discipline, it becomes very important to help these readers by signposting clearly for them.

“When we receive submissions from people for whom English is a foreign language, we don’t expect or require perfect writing skills, but we focus more on the organisation and presentation of the paper.”
Task 4

Read the two excerpts below. Highlight the language that is used to refer to the organisation of the text itself and/or that tells the reader what to expect.

This paper is concerned with the effects of rent restructuring on the rents of social housing in rural areas in England. As we discuss below, one of the primary aims of rent restructuring policy is to reduce unjustifiable differences between the rents of similar dwellings in the local authority and housing association (‘Registered Social Landlord’—RSL) sectors locally. ... The paper attempts to explore these and related issues by examining the effects that restructuring has on rural rents and by considering, in the light of these effects, some of the likely impacts of restructuring on affordability and investment.

The paper proceeds as follows: we first briefly survey some of the recent work on social housing provision in rural areas that is pertinent to the concerns of this paper, before, in Section 3, giving an overview of rent setting in the social rented sector and the issues and debate to which this has given rise...

In some disciplinary journals certain patterns of organising the paper may be typical (such as ‘Introduction – Methods – Results – Discussion’), but in an interdisciplinary journal there is likely to be more diversity. Signposting is therefore of vital importance in interdisciplinary journals, so that the reader can see how the paper is organised and what the status of a piece of information is – is it an example, is it a reason, is it a factor, etc?

Another reason why good signposting is needed is that interdisciplinary journals, especially in the Social Sciences, may have longer articles that therefore need to be clearly organised. The editors of some interdisciplinary journals are aware that writers may need to explain certain concepts to their multi-disciplinary audience and therefore offer more space.

“Sometimes in interdisciplinary papers it has been a case of going back a step and explaining a certain idea a little more than we would if we were writing for a journal in our own discipline.”
2. Explaining concepts
Although writers always need to explain what they mean, this is even more important when writing for a multi-disciplinary audience.

“When I write for a more general audience, I try to use English, not jargon.”

Articles in interdisciplinary journals contain more ‘code glosses’ (Vande Kopple, 1985) e.g. words or phrases that point the reader to the meaning of elements in text. It is a good idea to ask yourself how you can guide the reader in your writing e.g. where you need to explain, rephrase, elaborate or exemplify, as in the following example.

By ‘adaptation’ economists mean actions undertaken once environmental change has occurred to minimize the negative effects, or take advantage of the beneficial effects. For example, in response to a warmer climate, farmers might switch the crops they grow and the timing of crop planting and harvest.

Some of the phrases that would be useful when you explain something to your reader are: *which means, that is to say, such as, for instance.*

“My audience often consists of people whose first language is not English so it is important to use clear language.”
3.4. Vocabulary

“Part of the job of crafting your research paper for publication is honing your language and defining the terms well so that everyone knows what you are talking about.”

The examples from the last article included some examples of definitions. Explaining terminology is crucial when writing for a multi-disciplinary audience. It is natural to assume that concepts you are familiar with will be interpreted in the ‘normal’ way, but the same words can have a different meaning in another context. When you know about the existence of different interpretations of concepts in other fields, you can refer to these in your writing, as in the following example (from the same article as the examples above):

By ‘adaptation’ economists mean actions undertaken once environmental change has occurred to minimize the negative effects, or take advantage of the beneficial effects. ...‘Mitigation’ in the economic literature refers to actions that reduce or prevent undesirable environmental effects of production and consumption. Other disciplines outside economics often assign a broader definition to the term that may include elements of what we have termed ‘adaptation’ above. For example, one legal definition includes the following [three] additional meanings: ....
As you will not always know which concepts need to be explained, it is best to err on the side of caution and explain your key terms.

"The word ‘cohort’ means a specific study group when you talk to environmental epidemiologists, but it means something different to ecologists. When we worked together, it took some time to realise we were talking about different things. You have to clarify your terms."

Task 6

Identify (1) the concepts that are being defined in these excerpts and (2) their definitions.

1. Discussion on social aspects of ongoing relationships is captured within the framework of social capital proposed in the network literature. In this line of literature, social capital is conceptualized as a set of relational resources embedded in relationships that positively influence firm conduct and performance (Gulati et al., 2000 and Nahapiet and Ghoshal, 1998).

2. Given the coarse scale of current global integrated scenarios (and probably of those in the future), downscaling provides one possible tool for generating information at finer resolutions. The term “downscaling” is used here for any process in which coarse-scale data is disaggregated to a finer scale while ensuring consistency with the original data set.

It is a good idea to be clear about the extent to which your concepts are applicable. Notice how in both examples the definitions are given a specific context:

- ‘in this line of literature, social capital is ...’,
- ‘The term ... is used here for ...’
“I worked in a team with people from Geography, Criminal Justice and Psychology to submit a proposal and we had to meet four times before we used the same terms to refer to concepts and had an understanding of what the issues were.”

3.5. Writing about yourself and others

This section is about the use of pronouns such as ‘I’ and ‘we’.

In general, the convention of journals is for authors to write in an impersonal way, rather than referring to people. Some editors will make changes to the language if this is the case. The reason for preferring an impersonal style is because it is seen to focus attention on the phenomena under investigation rather than on the researchers. The style in Physical Science journals tends to be more impersonal than in Social Science journals.

“The interdisciplinary journal I edit we have no objections to papers using personal pronouns, but the writing can’t be too colloquial.”

The use of passive forms is related to the use of pronouns, as the passive allows the writer to leave out pronouns. For example: ‘a survey of town centre visitors was undertaken on two occasions’ [passive] is more impersonal than ‘we surveyed town centre visitors on two occasions’ [active].

Some editors like the passive; others prefer the active because it is more explicit: it states clearly who did what.

Some journals prefer a more personal style and do not discourage the use of ‘I’ or ‘we’. The reason for this is that it can make the article more interesting or easier to read. The use of pronouns such as ‘we’ also appears to have become more acceptable over time.

“Our journal does not set stylistic guidelines and we welcome transdisciplinary work. We have a global trans-cultural perspective although our language is English.”
Task 7

Who does ‘I’, ‘we’ or ‘our’ mainly refer to in the following excerpts from interdisciplinary journals? Match the excerpts 1-4 with the options A-D. Note that some of these functions overlap.

A. writers who have personally carried out the research
B. writers who are perhaps being critical of others (who have different methods)
C. writers who are being explicit to help the reader understand the meaning of the research
D. writers who are discussing the organisation of their text

1. *After balancing limited research resources with the perceived need to collect information from a variety of groups, we decided to conduct a total of 10 interviews.*

2. *Overall, our findings challenge the common belief that OUICs are valuable by enabling firms to collect large amount of user-generated ideas. We found that simply collecting ideas from OUICs is not valuable whereas another often overlooked aspect related to how firms deal with the ideas from OUICs matters for value creation.*

3. *In sum, I have used this section to canvass a range of wider themes that have emerged in recent social thought.*

4. *This is presented in a diagram form as I argue the need to consider the political and discursive contexts in which a ‘community’ occurs and then focus on a number of constituent elements. People (through their multiple identities and groupings) are seen as ‘central’ to the constructions of a ‘community’.*
Task 8

In the following excerpts, what pronouns and/or phrases do the researchers use to refer to themselves?

1. In order to explore the extent of mutual dependence between market town services and hinterland residents, a questionnaire survey of town centre visitors was undertaken in February and June 2001 and 2002, with 432 usable questionnaires being completed. Respondents were interviewed face-to-face within the town centre, with selection based on the ‘next-to-pass’. The interviewers visited the towns on a normal weekday, a market day during the week and on Saturday.

2. The timing of the data collection was suitable for the adoption study because mobile payments were available in the market but were still a relatively new innovation. We were therefore able to study mobile payments at a time when their adoption decision was still recent for the interviewees and to avoid the recall problem of adoption studies (Rogers, 1995).

Four researchers conducted the interviews in pairs where one moderated the discussion and the other managed a recorder and the facilities.

4. Conclusions

In disciplinary journals, writers tend to follow a conventionalised structure. They may adhere to a discipline-specific style and cite the same literature as the papers already published by the journal. A paper in such a journal needs to demonstrate that it makes a methodological, theoretical or empirical contribution to the field or discipline, and authors are likely to emphasise the innovation in the theory or the method, and demonstrate expertise.

“As an editor of an interdisciplinary journal, I do not like papers that present the methods in a dry way, without motivating me in terms of its usefulness and broad audience, so I ask the authors to add to it, e.g. the usefulness to society or to other researchers, i.e. for a broader readership.

“They may need to add explanations and also to market or sell their ideas, i.e. make them more appealing.”
Papers in interdisciplinary journals tend to be longer and their length and style can be more flexible. In interdisciplinary journals there is less of a need to conform and authors have more freedom of expression. It is important for the authors to draw on a broad range of literature and to demonstrate the applicability of the research beyond their own discipline.

When writing for a broader audience, you are likely to need to include substantially more explanatory material and the focus will be on emphasising the relevance of the proposed method and on demonstrating applicability rather than expertise. In your paper you are likely to demonstrate how you address questions that are similar to those of other researchers but also how you adopt a different stance toward these questions.

It is important to clarify your terms and make sure that the terminology you use can be understood by a non-specialist audience. The language should be accessible to a broad audience and technical terms and key concepts need to be explained.

The tasks in this guide have provided you with excerpts from articles in interdisciplinary journals and have asked you to study them and notice how the writers have achieved their aims. When you prepare to write for one of these types of journals, visit the journal website, read the ‘guidelines for authors’ document carefully, and find some recent articles in the particular journal that are of interest to you, in order to learn what is required in areas such as the use of pronouns, the structure and purpose of introductions and so on (see the Checklist overleaf).

“What I do, if it’s a journal I haven’t published in before, I look back to the journal to see what they have published that might be related to what I’m thinking of writing, to check what I’m writing is something that is not repeating what they have done but connects to it in some way.”
Checklist:

**Before writing your draft:**

Research the journal that you plan to submit your paper to and notice how the following are handled in the majority of the papers:

- The length of the articles
- How the introduction is organised and what areas it addresses
- The way the writers situate the research: what they say is similar to the work of other writers and how they set themselves apart e.g. in terms of methodology
- The way the authors ‘write about writing’ in order to signpost and provide explanations to the readers
- The way in which terminology is explained
- The ways that authors organise their papers, particularly authors who are doing similar research to yours
- The use or avoidance of I/we

**After writing your draft:**

- Ask a colleague who does not work in your discipline to read the article and to let you know if it can be understood clearly or if you need to add more explanatory information.

Use the information that you deduce about the journal requirements and style to prepare your own article.

Finally, once you have a draft ready, it is important to identify a reader outside your usual discipline. Someone who is from a different disciplinary background will be able to let you know if you have given sufficient explanations, have been explicit enough and have defined the relevant concepts.
References


EU advisory Board ec.europa.eu/research/eurab/pdf/rec_4_5600_eurab_en.pdf [accessed 27/12/2015]


Sources of excerpts used in tasks, in order of appearance:


Task 1:
1. (1) Concerns about water scarcity and management have focused attention on the relationship between agriculture and other competing water uses.

(2) These results can be used by the relevant authorities to customize their interventions, knowing beforehand and in a well-structured form which are the different stakeholders’ priorities. In this way, more effective avenues of communication can be established in the decision-making processes regarding irrigation challenges.

2. (1) Climate change raises many questions with strong moral and ethical dimensions that are important to address in climate-policy formation and international negotiations. Particularly in the United States, the public discussion of these dimensions is strongly influenced by religious groups and leaders. Over the past few years, many religious groups have taken positions on climate change, highlighting its ethical dimensions.

(2) Policy strategies that pay careful attention to the effects of climate change and climate policy on the poor – in developing nations and the US itself – may find support among the US population. Religious framings of climate change resonate with the electorates of both progressive and conservative politicians and could serve as bridging devices for bipartisan climate-policy initiatives.

Task 2:
1. We propose an extension of Christensen’s theory of disruptive technologies ... The two main contributions of the paper are the extension to Christensen’s theory and the lessons from Kodak’s unsuccessful response to a major technological discontinuity.

2. less research has delved into the actual content of IS strategy per se. ... , our study contributes to the literature on IS strategy by identifying an extension to the existing typology, that is, by finding a fourth possible IS strategy,...

Task 3:
1c, 2d, 3a, 4b

Task 4:
- As we discuss below, ...
- The paper...
- The paper proceeds as follows: we first briefly survey ...
- ...before, in Section 3, ...

Task 5:
1. For example
2. For example
3. Such as
4. This means
5. That is

Task 6:
1. (1) social capital (2) a set of relational resources embedded in relationships that positively influence firm conduct and performance

2. (1) downscaling (2) any process in which coarse-scale data is disaggregated to a finer scale while ensuring consistency with the original data set.

Task 7:
1a, 2b, 3d, 4c

Task 8:
1. The interviewers ...
2. We ... Four researchers/ in pairs where one ...
and the other ...