Making the most of multi-disciplinary undergraduate research conferences

Introduction

This is the second of two Directions articles, which together offer guidance to help you gain the maximum benefit from participating in institutional and national multi-disciplinary undergraduate research conferences. Our earlier article introduced undergraduate research conferences, summarised the key benefits of participating in such events, and talked you through the steps you should take to prepare an effective verbal or poster presentation. The focus of this article is on how to make the most of these excellent opportunities when you are participating. To do this, you need to understand the importance of networking and engaging with the full conference programme. You also need to be able to identify and action the principles of effective research communication. This paper will provide you with the information you need to work through this process.

It is worth reiterating the value of communicating your research as a student beyond your university in diverse arenas. Preparing and delivering your verbal presentation, and defending your poster to multi-disciplinary audiences within and beyond your institution, develops a broad range of intellectual, organizational and inter-personal skills required by many employers (Hill & Walkington, 2016a). 'Going public' with your research will help you to move beyond the confines of your discipline and to experience presenting in a way that will become more familiar as you work professionally.

The importance of networking

National multi-disciplinary undergraduate research conferences, such as the British Conference of Undergraduate Research (BCUR), take place at different institutions each year and programme details vary. Institutional conferences are typically smaller in scale, have fewer presenters and are usually one-day events. These internal events have less time for activities beyond formal presentations and discussions of research, but they still allow informal networking during lunch and refreshment breaks. No matter what the scale of the conference, networking with other students and academic staff is a must.

Conferences provide both formal and informal networking opportunities for delegates. Informal occasions include refreshment breaks, lunches and dinners, and free time before and after the official programme timings. Some institutions hosting national conferences schedule networking activities, beginning with an introductory 'getting to know you' session, aimed at helping delegates to feel relaxed and a little more familiar with the conference environment and each other. These sessions might

include some form of ice-breaker activity. More formal activities encourage students to talk to peers about their research, and about themselves, their institutions and their interests. One example is the research version of 'speed dating', where you introduce yourself and your project in 30 seconds.

National undergraduate research conferences typically attract small numbers of students from a wide range of institutions and disciplines. There is a natural trend for these institutional groups to stick together for much of the event. However, reflections obtained from student participants of BCUR conferences over a three year period highlighted their awareness of the advantages of developing social competencies through conversations with their peers from other universities (Hill & Walkington, 2016a; Kneale et al., 2016; Walkington et al., 2017). These students understood the benefits of networking, viewing it as a key activity that sets these events apart from their usual discipline-based activities.

Undergraduate research conferences also offer a relatively informal atmosphere where you and your tutors can be more relaxed and less defined by the usual teacher-learner roles (Hill & Walkington, 2016a; Walkington et al., 2017). By engaging in discussions with tutors, and more experienced researchers, you are likely to gain valuable insights into professional academic life. Being involved in these conferences, you begin to join a community of practice, which is important for developing your professional identity, skills and experience.

We recommend that as soon as details are available, usually online a few days ahead of the conference, you take some time to look at the delegate list and detailed programme. This will include presentation titles, helping you to identify anyone you feel has common or even contrasting research interests. Make a list of the presentations and posters to visit and ask to chat with people, for example at a refreshment break to get more details. If you can prioritise your networking time to meet with individuals who might extend your thinking in your research area you will get more out of the conference. You may want to prepare business cards to give out to students and staff, or perhaps create a professional online profile to refer to during your conference networking.

Delivering your verbal presentation

An effective verbal presentation communicates a clear message in a logical manner. It considers the needs of the audience in order to capture their interest and develop their understanding. We covered the issues of prior rehearsal and the content of your presentation in our first Directions article. In this paper we consider the context and delivery of your verbal presentation. Remember that undergraduate research conferences are a safe environment; almost everyone presenting is a novice researcher, so

your audience will be supportive because they are in exactly the same situation as you and feel the same nerves and excitement.

Make sure you know the allocated time and room for your presentation. We suggest that you visit the room prior to the start of your session and spend five minutes considering the layout and the technology available to you. Your allocated room might be laid out in an unsuitable format and, if this is the case, contact one of the organisers about rearranging the furniture. Check that all equipment is functioning correctly and run your slides through to ensure they display properly and that all the technical aspects work (hyperlinks, video content, websites). If there are any issues, contact one of the conference organisers quickly. If possible, attend an earlier presentation in the same room and see how the facilities are used by others.

Your presentation will essentially be a personal story about your research. You should aim to look and act like a professional by wearing smart but comfortable clothes and adopting a confident but relaxed posture. First impressions count so try to build a relationship with the audience from the start. Don't forget to spend a couple of minutes talking about yourself, explaining who you are, how you came about doing your research and perhaps hooking in audience members by asking a challenging question and highlighting the relevance of the question to them. A little context helps, particularly when several speakers are talking in a session that may not have a strong connecting theme. Leave your slides projected long enough for viewers to take in their content, take the time to explain complex issues and graphics, and do not be afraid to emphasize key points. Remember to lead your visuals rather than let them lead you.

Having created a well-researched and well-written paper, all you have to do is tell a small group of interested people about it! Speak with suitable pacing, loud enough to be heard by everyone. If you feel yourself getting nervous, and either slowing down or speeding up, take a moment to compose yourself and then continue. At the beginning of your talk you can ask if the audience can hear you and during your presentation you can check that sound levels for audio-visual clips are satisfactory. Avoid reading from your notes or slides. It is more professional to learn your material well enough to speak confidently and freely, perhaps referring to one or two pre-prepared cue cards. Remember, it is unlikely that anyone in the room will know more about your research than you do. Speaking without a script lets you maintain eye contact with the audience and that helps them feel involved. You can also see if audience members look confused! It is a good idea to shift your focus around the room to involve as many people as possible in your talk. Feel free to move away from a lectern to your projected slides in order to point out text, graphs or tables. Most conferences will provide a 'clicker', which moves your

slides backwards and forwards without you having to stand by the computer keyboard. Many clickers also have a laser pointer so you can emphasise specific detail on your slides. Don't worry if you make a mistake during your presentation. Smile, breathe and calmly start the sentence or explanation again. If you recognise there is an error with text on a slide just point this out and indicate what it should say.

Think about the language you use in your presentation. You might be talking through some particularly exciting and progressive research, but if the audience isn't engaged, then your presentation isn't working. Using words appropriate for the layperson and clearly explaining key terms is vital at multi-disciplinary conferences where different subjects are allocated to the same session. You can also use inclusive language to engage the audience. Phrases like 'this graph shows us' draws listeners into your talk.

Lecture style papers at conferences are usually organised into parallel or concurrent sessions. Delegates may switch between these sessions as they want to see a variety of talks taking place across a number of rooms. While this may seem distracting at first, especially if people leave, just continue with your talk. The same is true if people arrive mid-presentation. Try to ignore late arrivals to the room and do not go back over material you have already covered for their benefit. As you progress through your presentation, watch the clock and keep to your allotted time. You are likely to be sharing the session with two or three other speakers so it is important that you respect their 'space'. If you find you are running out of time then you need to have the confidence to cut out an aspect of your talk or to skim quickly over a slide indicating only the fundamental issues. Ensure you reach your concluding slide, clearly coming to the end of your argument.

Be prepared to take questions from the audience after your presentation and look at these as a positive outcome. Questions offer you new ideas and help you to learn (Hill & Walkington, 2016a; Walkington et al., 2017). There will usually be a session chairperson who will moderate questions and make sure that they are taken in order, but if there is not you should control the question and answer period, keeping within your allocated time. Maintain your position at the front of the room and address the entire audience, not just the person who asked the question. Repeat aloud those questions which are difficult to hear, and always be succinct and polite with your replies. If you don't know the answer to an audience question, be honest and perhaps invite responses from the audience. Never try to 'make up' an answer to appear clever, as you will inevitably be found out. Offering the question back to the room is a good way to draw everyone into debate to try and solve the problem. Overall, remain confident and positive throughout the questions.

Delivering your poster presentation

Posters are usually displayed in a large conference space. During the allocated poster discussion time these spaces can get very busy with circulating delegates. Successful posters are eye-catching to draw in viewers and you must be prepared to discuss your research amidst the distractions of noise and a constant flow of people moving around you. It is a good idea to practice a short 'elevator pitch' about your research to convey your key messages and to draw delegates into your poster. Aim for a two minute talk. Consider the types of questions that may be asked about your research by those who come to look at your poster and rehearse your answers. Bear in mind that delegates can ask you about any aspect of the research and its applications. The sequence in which you discuss your material might differ each time, so practice with peers to become accustomed to answering unexpected questions.

The dialogue that emerges from poster presentation is typically more informal than the question and answer sessions at the close of verbal presentations. However, these discussion will often be more penetrating. They require you to think on your feet and adapt your information to match visitors' interests and attitudes. The benefit of this type of dialogue is that you will get the chance to speak to people who are genuinely interested in your work, and whose knowledge may range from expert to novice.

Engage with the full conference

Hopefully, you are beginning to appreciate that undergraduate research conferences are about much more than just your presentation. You will benefit most if you engage with the 'full' conference. As well as the social and networking events and student presentations, there is often a keynote speech. This is usually given by a subject expert and is related to the nature of research and the role of undergraduate students within it. Guest speakers appreciate an attentive audience and like being asked questions afterwards so it is worthwhile engaging with these sessions. Many conferences offer prizes for the best verbal and poster presentations. Prizes are good CV material, so give yourself plenty of time to prepare your work and make the best presentation.

You can contribute a great deal to the conference by asking questions of your peers at the end of their verbal presentations or during poster discussions. Your questions will encourage other students to reflect on their research, possibly helping them to gain new understanding (Walkington et al., 2017). This dialogue aids their learning as well as your own – working in partnership. Finally, if the conference is taking place at your own institution you may be able to help with organising or running the event, becoming a member of the Steering Group, chairing a session, or helping out with delegate registration. Undertaking these roles will broaden your skills beyond research communication.

Reflecting on your conference experience

Conferences usually have very full schedules. Afterwards, you should give yourself some time to reflect on your presentation and wider networking. Consider what went well and less well. Did you meet any useful contacts in terms of future research opportunities? If you did, email is a great way to keep in touch, and to follow up with people. Ask yourself what you learnt from attending and/or participating and consider how it will influence your research. Make some notes and discuss these with your tutor as your research develops or as you think about further study or careers.

Conclusion

Multi-disciplinary undergraduate research conferences can seem daunting at first and are quite intense experiences. However, at the same time they offer you a unique and authentic learning experience. Through presenting your work, viewing and questioning the work of others, and negotiating answers to questions from your peers, you are balancing alternative perspectives, and creatively reconstructing your own knowledge, understanding and conceptions of/confidence in yourself. You will walk away from the conference with a real sense of pride about your work and with skills that will be useful for further study, employment and your wider social life.

To make the most of these events, remember to:

- Take it all in - engage with the full programme, from social events, to keynotes, to other students' presentations;
- Relax - anyone presenting at the conference is likely to be a 'first timer'. Nobody knows your research better than you;
- Network and take the opportunity to meet an array of new people;
- Give yourself some time and space to reflect on the conference and lessons learnt for the future.

Further reading

Hay (2012) is an up-to-date textbook offering a practical guide for geography and environmental science students on how to communicate clearly and effectively in an academic setting.

The University of Leicester Student Learning Development website offers a suite of open access resources that support the delivery of effective oral and poster presentations: http://www2.le.ac.uk/offices/ld/resources/presentations.

The University of Oxford has produced a detailed document that describes the process of creating an academic poster: https://weblearn.ox.ac.uk/access/content/group/e05e05d2-f4ce-4a24-a008-031832bd1509/LearningRes_Open/Course_Book_Ppt_TIUD_Conference_Posters10.pdf

Hill & Walkington (2016b) is a book chapter that makes explicit the principles of effective research communication in a variety of oral, visual and written formats, including checklists that you might use to help you prepare for and feel confident in presenting your research in conference settings.

The British Conference of Undergraduate Research website offers useful material and further electronic links about how to publish student research in geography and other disciplines: http://www.bcur.org/.

Hay et al. (2005) is a Directions paper that explains how postgraduate and early career geographers can make the most of participation in academic conferences.

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